Product supplement no. 32-II
To prospectus dated November 14, 2011 and
prospectus supplement dated November 14, 2011

Registration Statement No. 333-177923
Dated April 19, 2013
Rule 424(b)(2)

JPMORGAN CHASE & CO.

Return Notes Linked to an Equity Index and a Volatility Index

General

- JPMorgan Chase & Co. may from time to time offer and sell return notes linked to an equity index (the "Equity Index") and a volatility index (the "Volatility Index") that is designed to track one or more positions (long and/or short) in futures contracts (each, a "VIX futures contract" and together, "VIX futures contracts") on the CBOE Volatility Index®, as described below. This product supplement no. 32-II describes terms that will apply generally to the notes, and supplements the terms described in the accompanying prospectus supplement and prospectus. A separate term sheet or pricing supplement, as the case may be, will describe terms that apply to specific issuances of the notes, including any changes to the terms specified below. We refer to such term sheets and pricing supplements generally as terms supplements. One or more separate underlying supplements or the relevant terms supplement will describe the Equity Index and the Volatility Index to which the notes are linked. If the terms described in the relevant terms supplement are inconsistent with those described in this product supplement or in any related underlying supplement or in the accompanying prospectus supplement or prospectus, the terms described in the relevant terms supplement will control.
- The notes are unsecured and unsubordinated obligations of JPMorgan Chase & Co. Any payment on the notes is subject to the credit risk of JPMorgan Chase & Co.
- The payment at maturity or, if applicable, upon early repurchase will be determined in part by the performance of the Equity Index and in part by the performance of the Volatility Index, as described below.
- The level of the Volatility Index may reflect the deduction of index fees or other adjustments. Please see the relevant terms supplement or any relevant underlying supplement for more information about any index fees or other adjustments.
- **The notes will be accelerated if the Average Index Return is less than the Acceleration Trigger Level on any day from but excluding the pricing date to but excluding the Observation Date.**
- For important information about tax consequences, see "Material U.S. Federal Income Tax Consequences" beginning on page PS-32 of this product supplement.
- Minimum denominations of $1,000 and integral multiples thereof, unless otherwise specified in the relevant terms supplement.
- Investing in the notes is not equivalent to investing directly in the Equity Index or any of its component securities, nor is it equivalent to taking a long or short position (or both positions) in the Volatility Index or any of its component VIX futures contracts.
- **The notes are not futures contracts and are not regulated under the Commodity Exchange Act of 1936, as amended (the "Commodity Exchange Act").** The notes are offered pursuant to an exemption from regulation under the Commodity Exchange Act, commonly known as the hybrid instrument exemption, that is available to securities that have one or more payments indexed to the value, level or rate of one or more commodities, as set out in section 2(f) of that statute. Accordingly, you are not afforded any protection provided by the Commodity Exchange Act or any regulation promulgated by the Commodity Futures Trading Commission.
- The notes will not be listed on any securities exchange, unless otherwise specified in the relevant terms supplement.
- If the relevant terms supplement provides for early repurchases at the option of the holders, you may request that we repurchase your notes on a daily basis in $1,000 minimum denominations, subject to our acceptance of your request and your compliance with the procedural requirements described below. **While we intend to accept all requests for early repurchase of notes, we are not obligated to accept any repurchase request. We are not committed to purchasing any note at a particular time or price.**

Key Terms

Indices: The relevant terms supplement will specify the equity index (the "Equity Index") and the volatility index (the "Volatility Index").

(continued on next page)

Investing in the notes involves a number of risks. See "Risk Factors" beginning on page PS-9.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the notes or passed upon the accuracy or the adequacy of this product supplement no. 32-II, the accompanying prospectus supplement and prospectus, or any related underlying supplement or terms supplement. Any representation to the contrary is a criminal offense.

The notes are not bank deposits and are not insured by the Federal Deposit Insurance Corporation or any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

J.P.Morgan

April 19, 2013

Key Terms (continued)

Payment at Maturity:	The amount you will receive at maturity will be based on the performances of the Indices. Unless otherwise specified in the relevant terms supplement, your payment at maturity per $1,000 principal amount note will be an amount in cash calculated as follows: $1,000 + [$1,000 × (Equity Return + Volatility Return)] where the Equity Return and Volatility Return are each determined as of the Observation Date (which will be accelerated if an Acceleration Trigger Event occurs). The relevant terms supplement may specify Ending Averaging Dates and that, if an Acceleration Trigger Event does not occur, the Equity Return and Volatility Return as of the Observation Date will reflect the arithmetic average of the closing levels of the Indices on each Ending Averaging Date. In no event, however, will the payment at maturity be less than $0. *You will lose some or a substantial portion of your initial investment at maturity if both the Equity Return and the Volatility Return are negative on the Observation Date or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the Observation Date.* ***For more information about Acceleration Trigger Events (which will cause the acceleration of the amounts due and payable under the terms of the notes), please see "— Acceleration Trigger Event" below.***
Payment upon Early Repurchase:	If the relevant terms supplement provides for early repurchases at the option of the holders, unless otherwise specified in the relevant terms supplement, subject to our acceptance of your request and your compliance with the procedures described under "Description of Notes — Early Repurchase at the Option of the Holders" and the potential postponements and adjustments as described under "Description of Notes — Postponement of a Determination Date," you may request that we repurchase your notes on any Repurchase Date during the term of the notes. **While we intend to accept all requests for early repurchase of notes, we are not obligated to accept any repurchase request. We are not committed to purchasing any note at a particular time or price.** If the relevant terms supplement provides for early repurchases at the option of the holders, the amount you will receive upon early repurchase will be based on the performances of the Indices. Unless otherwise specified in the relevant terms supplement, your payment upon early repurchase per $1,000 principal amount note will be an amount in cash calculated as follows: $1,000 + [$1,000 × (Equity Return + Volatility Return)] – Repurchase Fee Amount (if applicable) where the Equity Return and Volatility Return are each determined as of the applicable Repurchase Valuation Date. In no event, however, will the payment upon early repurchase be less than $0. *You will lose some or a substantial portion of your initial investment upon early repurchase if both the Equity Return and the Volatility Return are negative on the applicable Repurchase Valuation Date or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the applicable Repurchase Valuation Date and any applicable Repurchase Fee Amount.*
Equity Return:	On any relevant day, the Index Return of the Equity Index on that day
Volatility Return:	On any relevant day, the Index Return of the Volatility Index on that day
Index Return:	Unless otherwise specified in the relevant terms supplement, with respect to an Index on any relevant day: $\frac{\text{Ending Index Level} - \text{Initial Index Level}}{\text{Initial Index Level}}$
Initial Index Level:	Unless otherwise specified in the relevant terms supplement, with respect to an Index, the closing level of that Index on the pricing date or such other date as specified in the relevant terms supplement

(continued on next page)

Key Terms (continued)

Ending Index Level:	Unless otherwise specified in the relevant terms supplement, if the relevant terms supplement specifies Ending Averaging Dates and an Acceleration Trigger Event has not occurred, the Ending Index Level with respect to an Index as of the Observation Date will be equal to the arithmetic average of the closing levels of that Index on each of the Ending Averaging Dates. Unless otherwise specified in the relevant terms supplement, If the relevant terms supplement does not specify Ending Averaging Dates and an Acceleration Trigger Event has not occurred, the Ending Index Level with respect to an Index as of the Observation Date will be equal to the closing level of that Index on the Observation Date. Unless otherwise specified in the relevant terms supplement, with respect to an Index on any other relevant day (including the Observation Date if an Acceleration Trigger Event has occurred and the Observation Date has been accelerated to the Accelerated Observation Date), the Ending Index Level as of that day will be equal to the closing level of that Index on that day.
Acceleration Trigger Event:	Unless otherwise specified in the relevant terms supplement, an Acceleration Trigger Event will occur, and the notes will be accelerated, if the Average Index Return is less than the Acceleration Trigger Level on any Valuation Date. If an Acceleration Trigger Event occurs, the Observation Date will be accelerated to the Accelerated Observation Date and the Maturity Date will be accelerated to the third business day following the Accelerated Observation Date, as described below under "— Observation Date" and "— Maturity Date" below. After your notes are repaid early pursuant to an Acceleration Trigger Event, no further amounts will be owed to you under the notes. For more information about Acceleration Trigger Events, please see "Description of Notes — Acceleration Trigger Event." *Because an Acceleration Trigger Event will occur and your notes will be accelerated only if the Average Index Return is less than zero by a specified percentage, you will likely lose some or a substantial portion of your initial investment if an Acceleration Trigger Event occurs.*
Acceleration Trigger Level:	A fixed percentage that is less than 0%, as specified in the relevant terms supplement
Valuation Dates:	Each business day from but excluding the pricing date to but excluding the Observation Date. Each Valuation Date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."
Average Index Return:	Unless otherwise specified in the relevant terms supplement, on any relevant day: $\frac{\text{Equity Return + Volatility Return}}{2}$
Accelerated Observation Date:	The business day immediately following the day on which an Acceleration Trigger Event occurs, as described in "— Acceleration Trigger Event," subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."
Observation Date:	As specified in the relevant terms supplement, *provided, however* that if an Acceleration Trigger Event occurs, the Observation Date will be the Accelerated Observation Date. The Observation Date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."
Ending Averaging Dates:	If applicable, as specified in the relevant terms supplement. For the avoidance of doubt, if an Acceleration Trigger Event occurs, the Ending Averaging Dates, if any, will not apply and the Index Returns used to calculate the payment at maturity, if any, will be based on the applicable closing levels of the Indices on a single date, the Accelerated Observation Date. The Ending Averaging Dates, if any, are subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."
Maturity Date:	The Scheduled Maturity Date, *provided, however* that if an Acceleration Trigger Event occurs, the Maturity Date will be the third business day following the Accelerated Observation Date (as postponed, if applicable); *provided, further* that if, due to a market disruption event or otherwise, the Observation Date is postponed so that it falls less than three business days prior to the Scheduled Maturity Date, the Maturity Date will be the third business day following the Observation Date, as postponed, unless otherwise specified in the relevant terms supplement.
Scheduled Maturity Date:	As specified in the relevant terms supplement.

(continued on next page)

Key Terms (continued)

Early Repurchase Mechanics:	If the relevant terms supplement provides for early repurchases at the option of the holders, in order to request that we repurchase your notes on any Repurchase Date, you must deliver a Repurchase Notice to us via email at dln_repurchase@jpmchase.com by no later than 4:00 p.m., New York City time, on the business day prior to the relevant Repurchase Valuation Date and follow the procedures described under "Description of Notes — Early Repurchase at the Option of the Holders." If you fail to comply with these procedures, your notice will be deemed ineffective.
Repurchase Fee Amount:	If applicable, unless otherwise specified in the relevant terms supplement, an amount in cash per $1,000 principal amount note calculated as follows: $1,000 × Repurchase Fee
Repurchase Fee:	If applicable, a percentage as specified in the relevant terms supplement
Repurchase Valuation Date:	If applicable, the Valuation Date specified in the relevant Repurchase Note, subject to our acceptance of your request and your compliance with the procedures described under "Description of Notes — Early Repurchase at the Option of the Holders." Any Repurchase Valuation Date is subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."
Repurchase Date:	If applicable, the third business day following the applicable Repurchase Valuation Date
Repurchase Notice:	If applicable, the form of Repurchase Notice attached as Annex A to the relevant terms supplement

TABLE OF CONTENTS

	Page
Description of Notes	PS-1
Risk Factors	PS-9
Use of Proceeds and Hedging	PS-24
The Indices	PS-25
General Terms of Notes	PS-26
Material U.S. Federal Income Tax Consequences	PS-32
Plan of Distribution (Conflicts of Interest)	PS-36
Notice to Investors	PS-38
Benefit Plan Investor Considerations	PS-45

We have not authorized anyone to provide any information other than that contained or incorporated by reference in the relevant terms supplement, any related underlying supplement, this product supplement no. 32-II and the accompanying prospectus supplement and prospectus with respect to the notes offered by the relevant terms supplement and with respect to JPMorgan Chase & Co. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This product supplement no. 32-II, together with the relevant terms supplement, any related underlying supplement and the accompanying prospectus supplement and prospectus, contains the terms of the notes and supersedes all other prior or contemporaneous oral statements as well as any other written materials including preliminary or indicative pricing terms, correspondence, trade ideas, structures for implementation, sample structures, fact sheets, brochures or other educational materials of ours. The information in the relevant terms supplement, any related underlying supplement, this product supplement no. 32-II and the accompanying prospectus supplement and prospectus may only be accurate as of the dates of each of these documents, respectively.

The notes described in the relevant terms supplement and this product supplement no. 32-II are not appropriate for all investors and involve important legal and tax consequences and investment risks, which should be discussed with your professional advisers. You should be aware that the regulations of Financial Industry Regulatory Authority, Inc., or FINRA, and the laws of certain jurisdictions (including regulations and laws that require brokers to ensure that investments are suitable for their customers) may limit the availability of the notes. The relevant terms supplement, any related underlying supplement, this product supplement no. 32-II and the accompanying prospectus supplement and prospectus do not constitute an offer to sell or a solicitation of an offer to buy the notes in any circumstances in which such offer or solicitation is unlawful.

In this product supplement no. 32-II, the relevant terms supplement, any related underlying supplement and the accompanying prospectus supplement and prospectus, “we,” “us” and “our” refer to JPMorgan Chase & Co., unless the context requires otherwise.

DESCRIPTION OF NOTES

*The following description of the terms of the notes supplements the description of the general terms of the debt securities set forth under the headings "Description of Notes" in the accompanying prospectus supplement and "Description of Debt Securities" in the accompanying prospectus. A separate terms supplement will describe the terms that apply to specific issuances of the notes, including any changes to the terms specified below. One or more separate underlying supplements or the relevant terms supplement will describe the Equity Index and the Volatility Index to which the notes are linked. Capitalized terms used but not defined in this product supplement no. 32-II have the meanings assigned in the accompanying prospectus supplement, prospectus, the relevant terms supplement and any related underlying supplement. The term "**note**" refers to each $1,000 principal amount of our Return Notes Linked to an Equity Index and a Volatility Index.*

General

The notes are unsecured and unsubordinated obligations of JPMorgan Chase & Co. that are linked to an equity index specified in the relevant terms supplement (the "**Equity Index**") and a volatility index specified in the relevant terms supplement (the "**Volatility Index**" and, together with the Equity Index, the "**Indices**" and each, an "**Index**") that is designed to track one or more positions (long and/or short) in futures contracts (each, a "**VIX futures contract**" and together, "**VIX futures contracts**") on the CBOE Volatility Index® (the "**VIX Index**"), as described below. The level of the Volatility Index may reflect the deduction of index fees or other adjustments. Please see the relevant terms supplement or any relevant underlying supplement for more information about any index fees or other adjustments.

The notes are a series of debt securities referred to in the accompanying prospectus supplement and prospectus. The notes will be issued by JPMorgan Chase & Co. under an indenture dated May 25, 2001, as may be amended or supplemented from time to time, between us and Deutsche Bank Trust Company Americas (formerly Bankers Trust Company), as trustee.

The notes do not pay interest and do not guarantee any return of principal at, or prior to, maturity or, if applicable, early repurchase; **therefore, you must be aware of the risk that you may lose some or a substantial portion of the principal amount of your notes at maturity or, if applicable, upon early repurchase.** At maturity or, if applicable, upon early repurchase, you will receive a payment in cash, the amount of which will vary depending on the performances of the Indices. **Any payment on the notes is subject to the credit risk of JPMorgan Chase & Co.**

If the relevant terms supplement provides for early repurchases at the option of the holders, you may request that we repurchase your notes on a daily basis in $1,000 minimum denominations, subject to our acceptance of your request and your compliance with the procedural requirements described under "— Early Repurchase at the Option of the Holders" below. **While we intend to accept all requests for early repurchase of notes, we are not obligated to accept any repurchase request. We are not committed to purchasing any note at a particular time or price.**

The notes will be accelerated if the Average Index Return is less than the Acceleration Trigger Level on any day from but excluding the pricing date to but excluding the Observation Date. For more information about Acceleration Trigger Events, see "— Acceleration Trigger Event" below.

The notes are not bank deposits and are not insured by the Federal Deposit Insurance Corporation or by any other governmental agency, nor are they obligations of, or guaranteed by, a bank.

The notes are our unsecured and unsubordinated obligations and will rank *pari passu* with all of our other unsecured and unsubordinated obligations.

The notes will be issued in denominations of $1,000 and integral multiples thereof, unless otherwise specified in the relevant terms supplement. The principal amount and issue price of each

note is $1,000, unless otherwise specified in the relevant terms supplement. The notes will be represented by one or more permanent global notes registered in the name of The Depository Trust Company, or DTC, or its nominee, as described under "Description of Notes — Forms of Notes" in the accompanying prospectus supplement and "Forms of Securities — Book-Entry System" in the accompanying prospectus.

The terms of specific issuances of the notes will be described in the relevant terms supplement accompanying this product supplement no. 32-II and any related underlying supplement. The terms described in the relevant terms supplement will supplement those described in this product supplement and in any related underlying supplement, the accompanying prospectus and prospectus supplement. If the terms described in the relevant terms supplement are inconsistent with those described in this product supplement or in any related underlying supplement, the accompanying prospectus or prospectus supplement, the terms described in the relevant terms supplement will control.

Payment at Maturity

The Maturity Date for the notes will be the Scheduled Maturity Date set forth in the relevant terms supplement, subject to acceleration or postponement as described below.

The amount you will receive at maturity will be based on the performances of the Indices. Unless otherwise specified in the relevant terms supplement, your payment at maturity per $1,000 principal amount note will be an amount in cash calculated as follows:

$$\$1{,}000 + [\$1{,}000 \times (\text{Equity Return} + \text{Volatility Return})]$$

where the Equity Return and Volatility Return are each determined as of the Observation Date (which will be accelerated if an Acceleration Trigger Event occurs). The relevant terms supplement may specify Ending Averaging Dates and that, if an Acceleration Trigger Event does not occur, the Equity Return and Volatility Return as of the Observation Date will reflect the arithmetic average of the closing levels of the Indices on each Ending Averaging Date.

In no event, however, will the payment at maturity be less than $0.

You will lose some or a substantial portion of your initial investment at maturity if both the Equity Return and the Volatility Return are negative on the Observation Date or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the Observation Date.

For more information about Acceleration Trigger Events (which will cause the acceleration of the amounts due and payable under the terms of the notes), please see "— Acceleration Trigger Event" below.

On any relevant day, the "**Equity Return**" is the Index Return of the Equity Index on that day.

On any relevant day, the "**Volatility Return**" is the Index Return of the Volatility Index on that day.

Unless otherwise specified in the relevant terms supplement, the "**Index Return**" of an Index on any relevant day is the percentage change in the closing level of that Index calculated by the Note Calculation Agent by comparing the Ending Index Level of that Index as of that day to the Initial Index Level of that Index. The Index Return of an Index on any relevant day, unless otherwise specified in the relevant terms supplement, is calculated as follows:

$$\text{Index Return} = \frac{\text{Ending Index Level} - \text{Initial Index Level}}{\text{Initial Index Level}}$$

Unless otherwise specified in the relevant terms supplement, the "**Initial Index Level**" of an Index means the closing level of that Index on the pricing date or such other date as specified in the relevant terms supplement.

Unless otherwise specified in the relevant terms supplement, if the relevant terms supplement specifies Ending Averaging Dates and an Acceleration Trigger Event has not occurred, the "**Ending Index Level**" with respect to an Index as of the Observation Date will be equal to the arithmetic average of the closing levels of that Index on each of the Ending Averaging Dates. Unless otherwise specified in the relevant terms supplement, If the relevant terms supplement does not specify Ending Averaging Dates and an Acceleration Trigger Event has not occurred, the "**Ending Index Level**" with respect to an Index as of the Observation Date will be equal to the closing level of that Index on the Observation Date.

Unless otherwise specified in the relevant terms supplement, with respect to an Index on any other relevant day (including the Observation Date if an Acceleration Trigger Event has occurred and the Observation Date has been accelerated to the Accelerated Observation Date), the "**Ending Index Level**" as of that day will be equal to the closing level of that Index on that day.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, the "**closing level**" of an Index on any relevant day will equal the official closing level of that Index or any successor index thereto (as described under any related underlying supplement or under "General Terms of Notes — Discontinuation of an Index; Alteration of Method of Calculation" below) published with respect to that day. In certain circumstances, the closing level of an Index will be based on the alternative calculation of that Index described under any related underlying supplement or under "— Postponement of a Determination Date" or "General Terms of Notes — Discontinuation of an Index; Alteration of Method of Calculation" below.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, a "**trading day**," as determined by the Note Calculation Agent, is (a) with respect to the Equity Index, a day on which trading is generally conducted on (i) the relevant exchanges (as defined below) for securities underlying the Equity Index or the relevant successor index, if applicable, and (ii) the exchanges on which futures or options contracts related to the Equity Index or the relevant successor index, if applicable, are traded and (b) with respect to the Volatility Index, a day on which trading is generally conducted on the relevant exchange for the Volatility Index or the relevant successor index, if applicable.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, "**relevant exchange**" means (a) with respect to the Equity Index or any relevant successor index, the primary exchange or market of trading for any security (or any combination thereof) then included in the Equity Index or successor index, as applicable, and (b) with respect to the Volatility Index or any relevant successor index, the primary exchange or market of trading for any VIX futures contract then included in the Volatility Index or successor index, as applicable.

The "**Observation Date**" will be specified in the relevant terms supplement, *provided, however* that if an Acceleration Trigger Event occurs, the Observation Date will be the Accelerated Observation Date. The Observation Date is subject to postponement in the event of certain market disruption events and as described under "— Postponement of a Determination Date" below.

If applicable, the "**Ending Averaging Dates**" will be as specified in the relevant terms supplement. For the avoidance of doubt, if an Acceleration Trigger Event occurs, the Ending Averaging Dates, if any, will not apply and the Index Returns used to calculate the payment at maturity, if any, will be based on the applicable closing levels of the Indices on a single date, the Accelerated Observation Date. The Ending Averaging Dates, if any, are subject to postponement in the event of certain market disruption events and as described under "Description of Notes — Postponement of a Determination Date."

The "**Maturity Date**" will be the Scheduled Maturity Date, *provided, however* that if an Acceleration Trigger Event occurs, the Maturity Date will be the third business day following the Accelerated Observation Date (as postponed, if applicable); *provided, further* that if, due to a market disruption event or otherwise, the Observation Date is postponed so that it falls less than three business days prior to the Scheduled Maturity Date, the Maturity Date will be the third business day following the Observation Date, as postponed, unless otherwise specified in the relevant terms supplement. We describe market disruption events under "General Terms of Notes — Market Disruption Events."

We will irrevocably deposit with DTC no later than the opening of business on the applicable date or dates funds sufficient to make payments of the amount payable, if any, with respect to the notes on the applicable date or dates. We will give DTC irrevocable instructions and authority to pay the applicable amount to the holders of the notes entitled thereto.

A "**business day**" is, unless otherwise specified in the relevant terms supplement, any day other than a day on which banking institutions in The City of New York are authorized or required by law, regulation or executive order to close or a day on which transactions in U.S. dollars are not conducted.

The "**Note Calculation Agent**" is the agent appointed by us to make certain calculations for the notes, which initially will be J.P. Morgan Securities LLC ("**JPMS**"). See "General Terms of Notes — Note Calculation Agent" below. JPMS is our affiliate and may have interests adverse to you. Please see "Risk Factors — We or our affiliates may have economic interests that are adverse to those of the holders of the notes because we are the issuer of the notes and our affiliate, JPMS, is the Note Calculation Agent and an Agent of the offering of the notes" and "Risk Factors — We or our affiliates may have economic interests that are adverse to those of the holders of the notes due to JPMS's role as Note Calculation Agent."

Subject to the foregoing and to applicable law (including, without limitation, U.S. federal laws), we or our affiliates may, at any time and from time to time, purchase outstanding notes by tender, in the open market or by private agreement.

Early Repurchase at the Option of the Holders

If the relevant terms supplement provides for early repurchases at the option of the holders, unless otherwise specified in the relevant terms supplement, you may submit a request no later than 4:00 p.m., New York City time, on the business day prior to the relevant Repurchase Valuation Date to have us repurchase your notes in $1,000 minimum denominations on the third business day following that Repurchase Valuation Date (the "**Repurchase Date**").

While we intend to accept all requests for early repurchase of notes, we are not obligated to accept any repurchase request. We are not committed to purchasing any note at a particular time or price.

If applicable, the "**Repurchase Valuation Date**" will be the Valuation Date specified in the relevant Repurchase Note (as defined below), subject to our acceptance of your request and your compliance with the procedures described under Repurchase Requirements" below. Any Repurchase Valuation Date is subject to postponement in the event of certain market disruption events and as described under "— Postponement of a Determination Date."

If the relevant terms supplement provides for early repurchases at the option of the holders, the amount you will receive upon early repurchase will be based on the performances of the Indices. Unless otherwise specified in the relevant terms supplement, your payment upon early repurchase per $1,000 principal amount note will be an amount in cash calculated as follows:

$1,000 + [$1,000 × (Equity Return + Volatility Return)] – Repurchase Fee Amount (if applicable)

where the Equity Return and Volatility Return are each determined as of the applicable Repurchase Valuation Date.

In no event, however, will the payment upon early repurchase be less than $0.

You will lose some or a substantial portion of your initial investment upon early repurchase if both the Equity Return and the Volatility Return are negative on the applicable Repurchase Valuation Date or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the applicable Repurchase Valuation Date and any applicable Repurchase Fee Amount.

If applicable, unless otherwise specified in the relevant terms supplement, the "**Repurchase Fee Amount**" will be an amount in cash per $1,000 principal amount note calculated as follows:

$1,000 × Repurchase Fee

If applicable, unless otherwise specified in the relevant terms supplement, the "**Repurchase Fee**" is a percentage as specified in the relevant terms supplement.

Repurchase Requirements

If the relevant terms supplement provides for early repurchases at the option of the holders, to request that we repurchase your notes, you must instruct your broker or other person through whom you hold your notes to take the following steps:

- send a notice of repurchase, substantially in the form attached as Annex A to the relevant terms supplement (a "**Repurchase Notice**"), to us via email at dln_repurchase@jpmchase.com by no later than 4:00 p.m., New York City time on the business day prior to the relevant Repurchase Valuation Date. The subject line of the email should include the title of the notes and the CUSIP for those notes. We or our affiliate must acknowledge receipt of the Repurchase Notice on the same business day for it to be effective, which acknowledgment will be deemed to evidence our acceptance of your repurchase request;

- instruct your DTC custodian to book a delivery versus payment trade with respect to your notes on the relevant Repurchase Valuation Date at a price equal to the amount payable upon early repurchase of the notes; and

- cause your DTC custodian to deliver the trade as booked for settlement via DTC at or prior to 10:00 a.m., New York City time, on the relevant Repurchase Date.

Different brokerage firms may have different deadlines for accepting instructions from their customers. Accordingly, you should consult the brokerage firm through which you own your interest in the notes in respect of those deadlines. If we do not receive your Repurchase Notice by 4:00 p.m. on the business day prior to the relevant Repurchase Valuation Date OR we (or our affiliate) do not acknowledge receipt of the Repurchase Notice on the same day, your Repurchase Notice will not be effective, and we will not repurchase your notes on the relevant Repurchase Date. Any Repurchase Notice for which we (or our affiliate) acknowledge receipt of in accordance with the procedures described above will be irrevocable.

The Note Calculation Agent will, in its sole discretion, resolve any questions that may arise as to the validity of a Repurchase Notice and the timing of receipt of a Repurchase Notice or as to whether and when the required deliveries have been made. Once given, a Repurchase Notice may not be revoked. Questions about the repurchase requirements should be directed to dln_repurchase@jpmchase.com.

Acceleration Trigger Event

If an Acceleration Trigger Event occurs, the Observation Date will be accelerated to the Accelerated Observation Date and the Maturity Date will be accelerated to the third business day following the Observation Date, as adjusted, as described under "— Payment at Maturity" above. Following payment pursuant to an Acceleration Trigger Event, no further amounts will be payable under the notes.

Unless otherwise specified in the relevant terms supplement, an "**Acceleration Trigger Event**" will occur, and the notes will be accelerated, if the Average Index Return is less than the Acceleration Trigger Level on any Valuation Date.

The "**Acceleration Trigger Level**" is a fixed percentage that is less than 0%, as specified in the relevant terms supplement.

The "**Valuation Dates**" are each business day from but excluding the pricing date to but excluding the Observation Date, each subject to postponement in the event of certain market disruption events and as described under "— Postponement of a Determination Date" below.

Unless otherwise specified in the relevant terms supplement, the "**Average Index Return**" on any relevant day is the average of the Index Returns of the Equity Index and the Volatility Index on that day, as calculated by the Note Calculation Agent. The Average Index Return on any relevant day, unless otherwise specified in the relevant terms supplement, is calculated as follows:

$$\text{Average Index Return} = \frac{\text{Equity Return} + \text{Volatility Return}}{2}$$

The "**Accelerated Observation Date**" is the business day immediately following the day on which an Acceleration Trigger Event occurs, subject to postponement in the event of certain market disruption events and as described under "— Postponement of a Determination Date" below.

Following an Acceleration Trigger Event, we will accelerate the payment on the notes by providing, or causing the Note Calculation Agent to provide, written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, no later than the business day immediately following the day on which the Acceleration Trigger Event occurred. The Observation Date will then be accelerated to the Accelerated Observation Date, and the Maturity Date will be accelerated to the third business day following the Observation Date, as adjusted, as described under "— Payment at Maturity" above

The amount due and payable per $1,000 principal amount note upon acceleration will be determined by the Note Calculation Agent pursuant to the payment at maturity calculation described above in "— Payment at Maturity" on the Observation Date, as accelerated to the Accelerated Observation Date, and will be payable on the Maturity Date, as accelerated. We will provide, or will cause the Note Calculation Agent to provide, written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, and to DTC of the cash amount due with respect to the notes as promptly as possible and in no event later than two business days prior to the date on which such payment is due.

Because an Acceleration Trigger Event will occur and your notes will be accelerated only if the Average Index Return is less than zero by a specified percentage, you will likely lose some or a substantial portion of your initial investment if an Acceleration Trigger Event occurs.

Postponement of a Determination Date

For purposes of this product supplement, each Valuation Date, any Repurchase Valuation Date, any Ending Averaging Date, the Observation Date and, if applicable, the Accelerated Observation Date are referred to as "**Determination Dates**."

If a Determination Date is not a trading day with respect to an Index or there is a market disruption event with respect to an Index on a Determination Date (any such day, a "**Disrupted Day**"), the applicable Determination Date will be postponed to the immediately succeeding business day that is not a Disrupted Day for either Index. Accordingly, if a Determination Date is postponed as described above, the Note Calculation Agent will reference the closing levels of the Indices on that Determination Date, as postponed, when calculating the Index Returns with respect to that day.

In no event, however, will any Determination Date be postponed to a date that is after the corresponding Final Disrupted Determination Date. If a Determination Date has been postponed to the corresponding Final Disrupted Determination Date and that day is a Disrupted Day for either Index, the closing level for each Index on that Final Disrupted Determination Date will be:

(a) for any Index that is not affected by a Disrupted Day on that Final Disrupted Determination Date, the closing level on that Final Disrupted Determination Date; or

(b) for any Index that is affected by a Disrupted Day on that Final Disrupted Determination Date, the closing level determined by the Note Calculation Agent in accordance with the formula for and method of calculating that Index last in effect prior to the commencement of the market disruption event (or prior to the non-trading day), using:

  (i) if that Index is the Equity Index, the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the Note Calculation Agent's good faith estimate of the closing price that would have prevailed but for that suspension or limitation or non-trading day) on that Final Disrupted Determination Date of each security most recently constituting the Equity Index; and

  (ii) if that Index is the Volatility Index, unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, the official settlement price (or, if trading in the relevant VIX futures contracts has been materially suspended or materially limited, the Note Calculation Agent's good faith estimate of the official settlement price that would have prevailed but for that suspension or limitation or non-trading day) on that Final Disrupted Determination Date of each VIX futures contract most recently constituting the Volatility Index and any VIX futures contract required to roll any expiring futures contract in accordance with the method of calculating the Volatility Index.

The "**Final Disrupted Determination Date**" means (a) with respect to any Repurchase Valuation Date, any Ending Averaging Date, the Observation Date and, if applicable, the Accelerated Observation Date, the third business day after that Repurchase Valuation Date, that Ending Averaging Date, the Observation Date or Accelerated Observation Date, as applicable, as originally scheduled, and (b) with respect to each Valuation Date, the earlier of (i) the third business day after that Valuation Date, as originally scheduled, and (ii) the business day immediately preceding the Observation Date, as originally scheduled.

For example, assume that:

(a) Business Day 1 and Business Day 2 are consecutive Valuation Dates occurring several months prior to the Observation Date and both Valuation Dates are Disrupted Days for the Equity Index and the Volatility Index;

(b) Business Day 3 and Business Day 4 are not Disrupted Days for the Equity Index but are Disrupted Days for the Volatility Index; and

(c) Business Day 5 is not a Disrupted Day for either Index.

Under these circumstances, the Valuation Date originally scheduled to occur on Business Day 1 would be postponed to Business Day 4 and, with respect to that Valuation Date, as postponed, (a) the Equity Return would be calculated using the closing level of the Equity Index on Business Day 4 and (b) the Volatility Return would be calculated using the closing level of the Volatility Index determined on Business Day 4 by the Note Calculation Agent in the manner described under the third paragraph above under this "Postponement of a Determination Date" section. If the Average Index Return calculated using these Index Returns is less than the Acceleration Trigger Level, an Acceleration Trigger Event will occur and the Accelerated Observation Date would be Business Day 5, which would have been subject to further postponement if Business Day 5 had been a Disrupted Day for either Index.

If an Acceleration Trigger Event does not occur with respect to the Valuation Date originally scheduled to occur on Business Day 1, the Valuation Date originally scheduled to occur on Business Day 2 would be postponed to Business Day 5 and, with respect to that Valuation Date, as postponed, the Index Return of each Index would be calculated using the closing level of that Index on Business Day 5 for purposes of calculating the Average Index Return and determining whether an Acceleration Trigger Event has occurred.

If Business Day 1 described above were the Observation Date and the relevant terms supplement did not specify Ending Averaging Dates, the Observation Date would be postponed to Business Day 4 and, with respect to the determination on the Observation Date, as postponed, of the payment at maturity, (a) the Equity Return would be calculated using the closing level of the Equity Index on Business Day 4 and (b) the Volatility Return would be calculated using the closing level of the Volatility Index determined on Business Day 4 by the Note Calculation Agent in the manner described under the third paragraph above under this "Postponement of a Determination Date" section.

RISK FACTORS

Your investment in the notes will involve certain risks. The notes do not pay interest or guarantee any return of principal at, or prior to, maturity or, if applicable, early repurchase. Investing in the notes is not equivalent to investing directly in the Indices or any of the securities or VIX futures contracts included in the Indices. In addition, your investment in the notes entails other risks not associated with an investment in conventional debt securities. ***You should consider carefully the following discussion of risks before you decide that an investment in the notes is suitable for you.***

Risks Relating to the Notes Generally

The notes do not pay interest or guarantee the return of your investment.

The notes do not pay interest and may not return any of your investment. The amount, if any, payable at maturity or, if applicable, upon early repurchase will be determined in part by the performance of the Equity Index and in part by the performance of the Volatility Index pursuant to the terms described in this product supplement no. 32-II and the relevant terms supplement. The level of the Volatility Index may reflect the deduction of index fees or other adjustments. Please see "— You may receive less than your initial investment due to any index fees or other adjustments applicable to the Volatility Index" below for more information. You will lose some or a substantial portion of your initial investment at maturity or, if applicable, upon early repurchase if both the Equity Return and the Volatility Return are negative on the Observation Date or the applicable Repurchase Valuation Date, as the case may be, or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the Observation Date or the applicable Repurchase Valuation Date, as the case may be, and any applicable Repurchase Fee Amount in the case of an early repurchase.

The notes are subject to the credit risk of JPMorgan Chase & Co.

The notes are subject to the credit risk of JPMorgan Chase & Co., and our credit ratings and credit spreads may adversely affect the market value of the notes. Investors are dependent on JPMorgan Chase & Co.'s ability to pay all amounts due on the notes, and therefore investors are subject to our credit risk and to changes in the market's view of our creditworthiness. Any decline in our credit ratings or increase in the credit spreads charged by the market for taking our credit risk is likely to affect adversely the value of the notes. If we were to default on our payment obligations, you may not receive any amounts owed to you under the notes and you could lose your entire investment.

You may receive less than your initial investment due to any index fees or other adjustments applicable to the Volatility Index or, upon early repurchase, if applicable, due to any applicable Repurchase Fee Amount.

The level of the Volatility Index may reflect the deduction of index fees or other adjustments. Please see the relevant terms supplement or any relevant underlying supplement for more information about any index fees or other adjustments. Any decrease in the level of the Volatility Index (due to any index fees or other adjustments or otherwise) will have a negative effect, which may be significant, on the payment at maturity on the notes. In addition, you will lose some or a substantial portion of your initial investment upon early repurchase, if applicable, both the Equity Return and the Volatility Return are negative on the applicable Repurchase Valuation Date or if the positive Index Return from one Index is not sufficient to offset a negative Index Return from the other Index on the applicable Repurchase Valuation Date and any applicable Repurchase Fee Amount.

The returns of the Equity Index and the Volatility Index may offset each other.

The payment at maturity or, if applicable, upon early repurchase will be determined in part by the performance of the Equity Index and in part by the performance of the Volatility Index. The returns of the Equity Index and the Volatility Index may not correlate with each other. At a time when the level of one Index increases, the level of the other Index may decline. Therefore, in determining the payment at maturity or, if applicable, upon early repurchase or whether an Acceleration Trigger Event has occurred, an increase in the level of one Index may be offset, in whole or in part, or more than offset, by a decline in the level of the other Index. For example, if, on the Observation Date, the Index Return of the Equity Index were 5% and the Index Return of the Volatility Index were -40%, you would lose 35% of your principal amount at maturity, notwithstanding the appreciation in the Equity Index.

If both Indices decline, the effect of the negative performance of one Index will be additive to the effect of the negative performance of the other Index.

It is possible that the returns of the Equity Index and the Volatility Index may both be negative, in which case the negative performance of one Index will be additive to the negative performance of the other Index. High correlation of movements in the Indices during periods of negative returns for both Indices could increase the likelihood of an Acceleration Trigger Event occurring and could otherwise have an adverse effect on any payment on the notes. In addition, unlike the determination of the Average Index Return on any Valuation Date for purposes of determining whether an Acceleration Trigger Event has occurred, the payment at maturity or, if applicable, upon early repurchase is based on the sum of the Index Returns of the Indices on the Observation Date or the relevant Repurchase Valuation Date, as the case may be, and not on the average of the Index Returns of the Indices on that date. For example, in determining the payment at maturity on the notes, if the Index Return of each Index on the Observation Date were -20%, the contributions of each Index to the return on the notes would be added together, so that the overall return on the notes would be -40%, a result that is worse than if the notes were linked to only one of the Indices or an average of both Indices.

Our offering of the notes does not constitute an expression of our view about, or a recommendation of, the Indices or the equity securities or futures contracts included in the Indices.

You should not take our offering of the notes as an expression of our views about how the Equity Index, the equity securities included in the Equity Index, the Volatility Index, the VIX futures contracts included in the Volatility Index, the VIX Index or options on the S&P 500® Index will perform in the future or as a recommendation to invest (directly or indirectly, by taking a long, short or long-short position) in any of the foregoing, including through an investment in the notes. As a global financial institution, we and our affiliates may, and often do, have positions (long, short or both) in the foregoing that conflict with an investment in the notes. See "— We or our affiliates may have economic interests that are adverse to those of the holders of the notes as a result of our hedging and other trading activities" below and "Use of Proceeds and Hedging" in this product supplement for some examples of potential conflicting positions we may have. You should undertake an independent determination of whether an investment in the notes is suitable for you in light of your specific investment objectives, risk tolerance and financial resources.

We or our affiliates may have economic interests that are adverse to those of the holders of the notes because we are the issuer of the notes and our affiliate, JPMS, is the Note Calculation Agent and an Agent of the offering of the notes.

We, JPMorgan Chase & Co., are the issuer of the notes and JPMS, another affiliate of ours, is the Notes Calculation Agent and an Agent of the offering of the notes. JPMS, as Note Calculation Agent, will determine, among other things, whether an Acceleration Trigger Event has occurred, whether there has been a market disruption event with respect to the notes and any payment on the notes. In the event of any such market disruption event, JPMS may postpone a Determination Date or use an alternate method to calculate the closing level of the Volatility Index or the Equity Index on that

Determination Date. If we or an affiliate of ours is the sponsor or calculation agent for the Volatility Index, JPMS, as an Agent of the offering of the notes, will receive the aggregate profits generated from the deduction of any index fees to cover ongoing payments related to the distribution of the notes and as a structuring fee for developing the notes. While we and our affiliates will act in good faith in making all determinations with respect to the notes, there can be no assurance that any determinations made by JPMorgan Chase & Co. or JPMS in these various capacities will not affect the value of the notes. Because determinations made by JPMS as the Note Calculation Agent may affect any payment on the notes, potential conflicts of interest may exist between JPMorgan Chase & Co. and JPMS, on the one hand, and you, as a holder of the notes, on the other.

We or our affiliates may have economic interests that are adverse to those of the holders of the notes as a result of our hedging and other trading activities.

In anticipation of the sale of the notes, we expect to hedge our obligations under the notes through certain affiliates or unaffiliated counterparties by taking positions in the equity securities included in the Equity Index or the VIX futures contracts that compose the Volatility Index or in instruments the value of which is derived from the Equity Index, the equity securities included in the Equity Index, the Volatility Index, the VIX futures contracts that compose the Volatility Index, the VIX Index or options on the VIX Index or the S&P 500® Index. We may also adjust our hedge by, among other things, purchasing or selling any of the foregoing at any time and from time to time, and close out or unwind our hedge by selling any of the foregoing on or before any Determination Date. We cannot give you any assurances that our hedging will not negatively affect the level of either Index or the performance of the notes. See "Use of Proceeds and Hedging" below for additional information about our hedging activities.

This hedging activity may present a conflict of interest between your interest as a holder of the notes and the interests our affiliates have in executing, maintaining and adjusting hedge transactions. These hedging activities could also affect the price at which JPMS is willing to purchase your notes in the secondary market.

Our hedging counterparties expect to make a profit. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, this hedging may result in a profit that is more or less than expected, or it may result in a loss.

JPMS and other affiliates of ours also trade the equity securities included in the Equity Index and the VIX futures contracts included in the Volatility Index and other financial instruments related to the Equity Index, the equity securities included in the Equity Index, the Volatility Index, the VIX futures contracts that compose the Volatility Index, the VIX Index and options on the VIX Index or the S&P 500® Index on a regular basis (taking long or short positions or both), for their accounts, for other accounts under their management and to facilitate transactions, including block transactions, on behalf of customers. While we cannot predict an outcome, any of these hedging activities or other trading activities of ours or our affiliates could potentially increase the level of an Index on the pricing date and/or decrease the closing level of an Index on any Determination Date, which could cause the notes to be accelerated or otherwise adversely affect any payment on the notes.

It is possible that those hedging or trading activities could result in substantial returns for us or our affiliates while the value of the notes declines.

We or our affiliates may have economic interests that are adverse to those of the holders of the notes as a result of our business activities.

We or our affiliates may currently or from time to time engage in business with companies the equity securities of which are included in the Equity Index (the "**underlying companies**"), including extending loans to, making equity investments in or providing advisory services to the underlying companies, including merger and acquisition advisory services. In the course of this business, we or our

affiliates may acquire nonpublic information about the underlying companies, and we will not disclose any such information to you. Moreover, in the course of our or our affiliates' trading activities, we or our affiliates may acquire material nonpublic information with respect to the VIX Index, VIX futures contracts or options on the S&P 500® Index and we will not disclose any such information to you. In addition, we or one or more of our affiliates may publish research reports or otherwise express views about the underlying companies or with respect to expected movements in the level of the Equity Index, the Volatility Index, the VIX Index or in the price of VIX futures contracts or options on the S&P 500® Index. Any prospective purchaser of notes should undertake an independent investigation of each of the underlying companies and of matters relating to the Volatility Index, the VIX Index and the VIX futures contracts as in its judgment is appropriate to make an informed decision with respect to an investment in the notes. We do not make any representation or warranty to any purchaser of notes with respect to any matters whatsoever relating to our business with the underlying companies or with respect to any matters relating to such future movements.

Additionally, we or one of our affiliates may serve as issuer, agent or underwriter for issuances of other securities or financial instruments with returns linked or related to changes in the level of an Index, the equity securities included in the Equity Index, the VIX futures contracts that compose the Volatility Index, the VIX Index or options on the S&P 500® Index. To the extent that we or one of our affiliates serves as issuer, agent or underwriter for those securities or financial instruments, our or their interests with respect to those products may be adverse to those of the holders of the notes. By introducing competing products into the marketplace in this manner, we or one or more of our affiliates could adversely affect the value of the notes.

We or one of our affiliates may currently or from time to time engage in trading activities related to the currencies in which the equity securities included in a foreign Equity Index are denominated. These trading activities could potentially affect the exchange rates with respect to those currencies and, if currency exchange rate calculations are involved in the calculation of the closing levels of that foreign Equity Index, could affect the closing levels of that foreign Equity Index and, accordingly, if the notes are linked to that foreign Equity Index, the value of the notes. A "**foreign Equity Index**" is one that is composed primarily of equity securities issued by non-U.S. companies.

In the course of our or our affiliates' currency trading activities, we or our affiliates may acquire material nonpublic information with respect to currency exchange rates, and we will not disclose any such information to you. In addition, one or more of our affiliates may produce and/or publish research reports, or otherwise express views, with respect to expected movements in currency exchange rates. We do not make any representation or warranty to any purchaser of notes with respect to any matters whatsoever relating to future currency exchange rate movements and, if the notes are linked to a foreign Equity Index, any prospective purchaser of the notes should undertake an independent investigation of the currencies in which equity securities included in that foreign Equity Index are denominated and their related exchange rates as, in its judgment, is appropriate to make an informed decision with respect to an investment in the notes.

We or our affiliates may have economic interests that are adverse to those of the holders of the notes due to JPMS's role as Note Calculation Agent.

JPMS, one of our affiliates, will act as the Note Calculation Agent. The Note Calculation Agent will determine, among other things, each Initial Index Level, each Ending Index Level, each Index Return, the Average Index Return on each Valuation Date for purposes of determining whether an Acceleration Trigger Event has occurred, the Repurchase Fee Amount, if applicable, and any payment on the notes. In addition, the Note Calculation Agent will determine, among other things:

- whether a market disruption event has occurred; and

- whether an Index has been discontinued, whether the method of calculating an Index has changed in a material respect and whether an Index has been otherwise modified so that it does not, in the opinion of the Note Calculation Agent, fairly represent the level of that Index had those changes or modifications not been made and, if applicable, which index to select as a successor index.

In performing these duties, JPMS may have interests adverse to the interests of the holders of the notes, which may affect your return on the notes, particularly where JPMS, as the Note Calculation Agent, is entitled to exercise discretion.

You will likely lose some or a substantial portion of your initial investment at maturity if the notes are accelerated due to an Acceleration Trigger Event.

The notes will be accelerated if the Average Index Return is less than the Acceleration Trigger Level on any Valuation Date. Because an Acceleration Trigger Event will occur and your notes will be accelerated only if the Average Index Return is less than zero by a specified percentage, you will likely lose some or a substantial portion of your initial investment at maturity if an Acceleration Trigger Event occurs. You will not benefit from any subsequent appreciation of either Index.

If the notes are accelerated due to an Acceleration Trigger Event, you will be exposed to reinvestment risk.

If the notes are accelerated due to an Acceleration Trigger Event, the holding period could be significantly less than the full term of the notes. There is no guarantee that you would be able to reinvest the proceeds from an investment in the notes in an investment with similar characteristics.

If the relevant terms supplement provides for early repurchases at the option of the holders, there will be restrictions on your ability to request that we repurchase your notes.

If you elect to request that we repurchase your notes, your request is only valid if we receive your Repurchase Notice by no later than 4:00 p.m., New York City time, on the business day prior to the relevant Repurchase Valuation Date and we (or our affiliates) acknowledge receipt of the Repurchase Notice that same day (which will evidence our acceptance of your repurchase request). If we do not receive that notice or we (or our affiliates) do not acknowledge receipt of that notice (which means we have declined to accept your repurchase request), your repurchase request will not be effective and we will not repurchase your notes on the corresponding Repurchase Date.

Because of the timing requirements of the Repurchase Notice (and our acknowledgment of receipt), settlement of the repurchase will be prolonged when compared to a sale and settlement in the secondary market. As your request that we repurchase your notes is irrevocable, this will subject you to market risk in the event the market fluctuates after we receive your request. Furthermore, if we accept your repurchase request, our obligation to repurchase the notes prior to maturity may be postponed upon the occurrence of a market disruption event.

If the relevant terms supplement provides for early repurchases at the option of the holders, you will not know the amount you will receive upon an early repurchase at the time you elect to request that we repurchase your notes.

You will not know the amount payable upon early repurchase at the time you elect to request that we repurchase your notes. Your notice to us to repurchase your notes is irrevocable and must be received by us no later than 4:00 p.m., New York City time, on the business day prior to the relevant Repurchase Valuation Date and we (or our affiliates) must acknowledge receipt of that notice on the same day. As a result, you will be exposed to market risk in the event the market fluctuates after we confirm the validity of your notice of election to request that we repurchase your notes (which will evidence our acceptance of your repurchase request), and prior to the relevant Repurchase Date.

The Ending Index Level of either Index may be less than the closing level of that Index on the Maturity Date, a Repurchase Date, if applicable, or at other times during the term of the notes.

The closing level of an Index on the Maturity Date, a Repurchase Date, if applicable, or at other times during the term of the notes, including dates near a relevant Determination Date, could be higher than the Ending Index Level of that Index used to determine any payment on the notes. This difference could be particularly large if there is a significant increase in the level of that Index after a relevant Determination Date, or if there is a significant decrease in the level of that Index around the time of a relevant Determination Date, or if there is significant volatility in the closing levels during the term of the notes (especially on dates near a relevant Determination Date). For example, if the relevant terms supplement does not specific Ending Averaging Dates, because the Observation Date is near the end of the term of the notes, if the closing level of an Index increases or remains relatively constant during the initial term of the notes and then decreases below the Initial Index Level of that Index, the Ending Index Level of that Index used to calculate the payment at maturity on the notes may be significantly less than if it were calculated on a date earlier than the Observation Date. Under these circumstances, you may receive a lower payment on the notes than you would have received if you had invested in the Indices, the equity securities or futures contracts underlying the Indices or contracts relating to the Indices for which there is an active secondary market.

The notes are designed to be held to maturity.

The notes are not designed to be short-term trading instruments. The price at which you will be able to sell your notes to us or our affiliates prior to maturity, if at all, may be at a substantial discount from the principal amount of the notes, even in cases where one or both Indices have appreciated since the pricing date. The potential returns described in the relevant terms supplement assume that your notes are held to maturity.

Secondary trading may be limited.

Unless otherwise specified in the relevant terms supplement, the notes will not be listed on any securities exchange. There may be little or no secondary market for the notes, other than through the early repurchase mechanism. Even if there is a secondary market for the notes, it may not provide enough liquidity to allow you to trade or sell the notes easily.

JPMS may act as a market maker for the notes, but is not required to do so. If the relevant terms supplement provides for early repurchases at the option of the holders, you may request that we repurchase your notes on a daily basis in $1,000 minimum denominations, subject to our acceptance of your request and your compliance with the procedural requirements described above. While we intend to accept all requests for early repurchase of notes, we are not obligated to accept any repurchase request. We are not committed to purchasing any note at a particular time or price. Because other dealers are not likely to make a secondary market for the notes, the price at which you may be able to trade your notes is likely to be no higher than the payment you could receive upon an early repurchase of your notes by us and could be substantially lower. If we do not accept your request to repurchase your notes, you may be unable to sell your notes prior to maturity. In addition, the number of notes outstanding or held by persons other than our affiliates could be reduced at any time due to early repurchases of the notes.

The inclusion in the original issue price of each Agent's commission and the estimated cost of hedging our obligations under the notes is likely to affect adversely the value of the notes prior to maturity or early repurchase.

While any payment on the notes will be based on the full principal amount of your notes as described in the relevant terms supplement, the original issue price of the notes includes each Agent's commission and the estimated cost of hedging our obligations under the notes. This estimated cost includes the profit our affiliates expect to realize in consideration for assuming the risks inherent in

providing and managing such hedge and, if we or an affiliate of ours is the sponsor or calculation agent for the Volatility Index, for maintaining the Volatility Index during the term of the notes through, among other things, any adjustment that is intended to reflect transaction costs or other costs that may be incurred in replicating the investment strategy underlying the Volatility Index deducted from the level of the Volatility Index. As a result, assuming no change in market conditions or any other relevant factors, the price, if any, at which JPMS will be willing to purchase notes from you in secondary market transactions, if at all, will likely be lower than the original issue price. In addition, any such prices may differ from values determined by pricing models used by JPMS, as a result of such compensation or other transaction costs.

Prior to maturity, the value of the notes will be influenced by many unpredictable factors.

Many economic and market factors will influence the value of the notes. We expect that, generally, the levels of the Equity Index and the Volatility Index on any day will affect the value of the notes more than any other single factor. However, you should not expect the value of the notes in the secondary market to vary in proportion to changes in the levels of the Equity Index or the Volatility Index. The value of the notes will be affected by a number of other factors that may either offset or magnify each other, including:

- prevailing market prices and forward volatility levels of the U.S. stock markets and the equity securities included in the S&P 500® Index and the Equity Index (if other than the S&P 500® Index);
- prevailing market prices, volatility and liquidity of any option or futures contracts relating to the Volatility Index, the VIX Index, the S&P 500® Index, the Equity Index (if other than the S&P 500® Index), the equity securities included in the S&P 500® Index and the Equity Index (if other than the S&P 500® Index) or VIX futures contracts;
- the actual and expected frequency and magnitude of changes (*i.e.*, volatility) in the Volatility Index, the Equity Index and in the prices of the securities included in the Equity Index and the VIX futures contracts included in the Volatility Index;
- the level of correlation of the Indices;
- the time to maturity of the notes;
- the dividend rate on the equity securities included in the Equity Index (while not paid to holders of the notes, dividend payments on any equity securities included in the Equity Index may influence the level of the Equity Index and the market value of options on the Equity Index and therefore affect the market value of the notes);
- interest and yield rates in the market generally as well as in the markets of the equity securities included in the Equity Index;
- economic, financial, political, regulatory or judicial events that affect the equity securities included in the Equity Index, stock markets generally, the VIX Index, the market for VIX futures contracts or futures contracts generally;
- supply and demand in the listed and over-the-counter equity derivative markets;
- for notes linked to a foreign Equity Index, the exchange rates and the volatility of the exchange rates between the U.S. dollar and the currencies in which the equity securities composing the Equity Index are traded, and, if the Equity Index is calculated in one currency and the equity securities composing the Equity Index are traded in one or more other currencies, the correlation between those rates and the value of the Equity Index; and
- our creditworthiness, including actual or anticipated downgrades in our credit ratings.

Some or all of these factors will influence the price you will receive if you choose to sell your notes prior to maturity. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You may have to sell your notes at a substantial discount from the principal amount if the Ending Index Level of either Index is at, below or not sufficiently above the Initial Index Level of that Index or if the Average Index Return on any Valuation Date is close to falling below the Acceleration Trigger Level.

You cannot predict the future performance of either Index based on its historical performance. The value of either or both Indices may decrease such that you may not receive any return of your investment. If the level of the Volatility Index reflects the deduction of index fees or other adjustments, the level of the Volatility Index will decrease if the performance of the synthetic positions in VIX futures contracts included in the Volatility Index is not sufficient to offset the deduction of those index fees or other adjustments. There can be no assurance that the level of either or both Indices will not decrease (or increase sufficiently to offset any Repurchase Fee Amount, if applicable) so that, at maturity or, if applicable, upon early repurchase, you will not lose some or a substantial portion of your investment.

The notes are not regulated by the Commodity Futures Trading Commission (the "CFTC").

The net proceeds to be received by us from the sale of the notes will not be used to purchase or sell any VIX futures contracts or options on futures contracts for your benefit. An investment in the notes thus does not constitute either an investment in futures contracts or options on futures contracts or an investment in a collective investment vehicle that trades in these futures contracts (*i.e.*, the notes will not constitute a direct or indirect investment by you in the futures contracts), and you will not benefit from the regulatory protections of the CFTC. Among other things, this means that we are not registered with the CFTC as a futures commission merchant and you will not benefit from the CFTC's or any other non-U.S. regulatory authority's regulatory protections afforded to persons who trade in futures contracts on a regulated futures exchange through a registered futures commission merchant. For example, the price you pay to purchase notes will be used by us for our own purposes and will not be subject to customer funds segregation requirements provided to customers that trade futures on an exchange regulated by the CFTC.

Unlike an investment in the notes, an investment in a collective investment vehicle that invests in futures contracts on behalf of its participants may be subject to regulation as a commodity pool and its operator may be required to register with and be regulated by the CFTC as a commodity pool operator, or qualify for an exemption from the registration requirement. Because the notes will not be interests in a commodity pool, the notes will not be regulated by the CFTC as a commodity pool, we will not be registered with the CFTC as a commodity pool operator, and you will not benefit from the CFTC's or any non-U.S. regulatory authority's regulatory protections afforded to persons who invest in regulated commodity pools.

Notes that provide exposure to equity volatility are not suitable for all investors. You should actively manage your investment in the notes.

Notes that provide exposure to equity volatility are not suitable for all investors. The notes reflect, in part, the performance of the Volatility Index, which is dependent on the price of the VIX futures contracts included in the Volatility Index. VIX futures contracts allow investors the ability to invest in forward equity volatility based on their view of the future direction of movement of the VIX Index, which is a benchmark index designed to measure the market price of volatility in large cap U.S. stocks, and is calculated based on the prices of certain put and call options on the S&P 500® Index.

As a consequence, investors in the notes should understand that their investment is exposed to the performance of the VIX futures contracts, which can be volatile and move dramatically over short periods of time. Because of the large and sudden price movements associated with VIX futures contracts, notes that provide exposure to equity volatility should be purchased only by sophisticated investors who understand risks associated with investments linked to equity volatility and who intend

to monitor and manage their investments actively. You should consider your investment horizon and objectives, financial resources and risk tolerance, as well as any potential trading costs, when evaluating an investment in the notes. Investors should regularly monitor their investment in the notes to ensure that it remains consistent with their investment objectives.

Owning the notes is not the same as owning the VIX futures contracts included in the Volatility Index, the options used to calculated the level of the Volatility Index or the equity securities included in the S&P 500® Index.

The return on your notes will not reflect the return you would realize if you actually held the VIX futures contracts included in the Volatility Index, the options used to calculate the level of the Volatility Index or the equity securities included in the S&P 500® Index. The Volatility Index is a hypothetical construct that does not hold any underlying assets of any kind. As a result, a holder of the notes will not have any direct or indirect rights that investors in the VIX futures contracts included in the Volatility Index, the options used to calculate the level of the Volatility Index or the equity securities included in the S&P 500® Index would have. Your notes will be paid in cash, and you will have no right to receive delivery of, or payment with respect to, the VIX futures contracts included in the Volatility Index, the options used to calculate the level of the VIX Index or any equity securities included in the S&P 500® Index (including any dividends or distributions relating to those securities).

Market disruptions may adversely affect your return.

The Note Calculation Agent may, in its sole discretion, determine that the markets have been affected in a manner that prevents it from properly determining the closing level of either Index on one or more Determination Dates, or an Index Return for purposes of calculating the Average Index Return to determine whether an Acceleration Trigger Event has occurred or calculating any amount that we are required to pay you on the notes. These events may include disruptions or suspensions of trading in the markets as a whole. If the Note Calculation Agent, in its sole discretion, determines that any of these events prevents us or any of our affiliates from properly hedging our obligations under the notes, it is possible that one or more Determination Dates will be postponed and your return will be adversely affected. See "General Terms of Notes — Market Disruption Events."

The tax consequences of an investment in the notes are uncertain.

There is no direct legal authority as to the proper U.S. federal income tax treatment of the notes, and we do not intend to request a ruling from the Internal Revenue Service (the "IRS"). The IRS might not accept, and a court might not uphold, the treatment of the notes as open transactions that are not debt instruments, as described in "Material U.S. Federal Income Tax Consequences." If the IRS were successful in asserting an alternative treatment for the notes, the timing and/or character of income on the notes could be affected materially and adversely. In addition, in 2007 Treasury and the IRS released a notice requesting comments on the U.S. federal income tax treatment of "prepaid forward contracts" and similar instruments. The notice focuses in particular on whether to require investors in these instruments to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of factors such as the nature of the underlying property to which the instruments are linked; the degree, if any, to which income (including any mandated accruals) realized by non-U.S. investors should be subject to withholding tax; and whether these instruments are or should be subject to the "constructive ownership" regime, which very generally can operate to recharacterize certain long-term capital gain as ordinary income and impose a notional interest charge. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect. You should review carefully the section entitled "Material U.S. Federal Income Tax Consequences" in this product supplement no. 32-II and consult your tax adviser regarding the U.S. federal income tax consequences of an investment in the notes, including possible alternative treatments and the issues presented by this notice.

Historical performance of an Index should not be taken as an indication of the future performance of that Index during the terms of the notes.

The actual performance of an Index over the term of the notes, as well as any amount payable on the notes, may bear little relation to the historical performance of that Index or, in the case of the Volatility Index, its hypothetical, back-tested historical performance. The trading prices of the equity securities in the Equity Index will determine the level of the Index, and the settlement prices of the relevant VIX futures contracts included in the Volatility Index and the level of the VIX Index will determine the level of the Volatility Index. As a result, it is impossible to predict whether the level of either Index will rise or fall.

JPMorgan Chase & Co. employees holding the notes must comply with policies that limit their ability to trade the notes and may affect the value of their notes.

If you are an employee of JPMorgan Chase & Co. or one of its affiliates, you may only acquire the notes for investment purposes and you must comply with all of our internal policies and procedures. Because these policies and procedures limit the dates and times that you may transact in the notes, you may not be able to purchase any notes described in the relevant terms supplement from us and your ability to trade or sell any of those notes in the secondary market may be limited.

Risks Relating to the Equity Index

The sponsor of the Equity Index (an "Index Sponsor") may adjust the Equity Index in a way that affects its level, and the Index Sponsor has no obligation to consider your interests.

The Index Sponsor of the Equity Index is responsible for calculating and maintaining the Equity Index. The Index Sponsor can add, delete or substitute the equity securities underlying the Equity Index or make other methodological changes that could change the level of the Equity Index. You should realize that the changing of equity securities included in the Equity Index may affect the Equity Index, as a newly added equity security may perform significantly better or worse than the equity security or securities it replaces. Additionally, the Index Sponsor may alter, discontinue or suspend calculation or dissemination of the Equity Index. Any of these actions could adversely affect the value of the notes. The Index Sponsor has no obligation to consider your interests in calculating or revising the Equity Index. See any related underlying supplement or the relevant terms supplement for additional information.

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, to our knowledge, we are not currently affiliated with any other company the equity securities of which are included in the Equity Index.

Unless otherwise specified in the relevant terms supplement or any related underlying supplement, to our knowledge, we are not currently affiliated with any issuers the equity securities of which are included in the Equity Index. As a result, we will have no ability to control the actions of the issuers of those equity securities, including actions that could affect the value of the equity securities underlying the Equity Index or your notes. Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, none of the money you pay us will go to any index sponsor or any of the issuers of the equity securities included in the Equity Index, and none of those issuers will be involved in the offering of the notes in any way. Neither those issuers nor we will have any obligation to consider your interests as a holder of the notes in taking any corporate actions that might affect the value of your notes. See any related underlying supplement or the relevant terms supplement for additional information about whether we are one of the companies included in the Equity Index.

In the event we become affiliated with any issuer of equity securities that are included in the Equity Index, we will have no obligation to consider your interests as a holder of the notes in taking any action with respect to such issuer that might affect the value of your notes.

If the Equity Index is not a total return index, the Index Return of the Equity Index will not reflect dividends on the equity securities included in the Equity Index.

If the Equity Index is not a total return index, the Index Return of the Equity Index will not reflect the return that would result from actual ownership of the equity securities included in the Equity Index or the receipt of the dividends paid on those equity securities. This is because the Note Calculation Agent will calculate the amount payable to you at maturity of the notes by reference, in part, to the Ending Index Level of the Equity Index. The Ending Index Level of the Equity Index reflects the prices of the equity securities as calculated in the Equity Index without taking into consideration the value of dividends paid on those equity securities.

You will have no shareholder rights in issuers of equity securities that compose the Equity Index.

As a holder of the notes, you will not have voting rights or rights to receive dividends or other distributions or other rights that holders of the equity securities composing the Equity Index would have.

For notes linked to a foreign Equity Index, if the prices of its component securities are not converted into U.S. dollars for purposes of calculating the value of the Equity Index, the amount payable on the notes at maturity will not be adjusted for changes in exchange rates that might affect the Equity Index.

Because the prices of the equity securities composing the Equity Index are not converted into U.S. dollars for purposes of calculating the value of the Equity Index and although the equity securities composing the Equity Index are traded in currencies other than U.S. dollars, and the notes, which are linked to the Equity Index, are denominated in U.S. dollars, any amount payable on the notes will not be adjusted for changes in the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the Equity Index are denominated. Changes in exchange rates, however, may reflect changes in various non-U.S. economies that, in turn, may affect any payment on the notes. Unless otherwise specified in the relevant terms supplement, any payment on the notes will be determined solely in accordance with the procedures described in the applicable section under "Description of Notes" in this product supplement.

For notes linked to a foreign Equity Index, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of the Equity Index, the notes will be subject to currency exchange risk.

Because the prices of the equity securities composing the Equity Index are converted into U.S. dollars for the purposes of calculating the value of the Equity Index, the holders of the notes will be exposed to currency exchange rate risk with respect to each of the currencies in which the equity securities composing the Equity Index trade. An investor's net exposure will depend on the extent to which those currencies strengthen or weaken against the U.S. dollar and the relative weight of the equity securities composing the Equity Index denominated in each of those currencies. If, taking into account this weighting, the U.S. dollar strengthens against those currencies, the value of the Equity Index will be adversely affected and any payment on the notes may be reduced.

Of particular importance to potential currency exchange risk are:

- existing and expected rates of inflation;
- existing and expected interest rate levels;
- the balance of payments in the component countries and the United States;
- political, civil or military unrest in the component countries and the United States; and
- the extent of governmental surpluses or deficits in the component countries and the United States.

All of these factors are in turn sensitive to the monetary, fiscal and trade policies pursued by the governments of various component countries, the United States and other countries important to international trade and finance.

For notes linked to a foreign Equity Index, if the prices of its component securities are converted into U.S. dollars for purposes of calculating the value of the Equity Index, changes in the volatility of exchange rates and the correlation between those rates and the values of the Equity Index are likely to affect the market value of the notes.

The exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the Equity Index are denominated refers to a foreign exchange spot rate that measures the relative values of two currencies — the particular currency in which an equity security composing the Equity Index and the U.S. dollar. This exchange rate reflects the amount of the particular currency in which an equity security composing the Equity Index is denominated that can be purchased for one U.S. dollar and thus increases when the U.S. dollar appreciates relative to the particular currency in which that equity security is denominated. The volatility of the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the Equity Index are denominated refers to the size and frequency of changes in that exchange rate.

Because the Equity Index is calculated, in part, by converting the closing prices of the equity securities composing the Equity Index into U.S. dollars, the volatility of the exchange rate between the U.S. dollar and each of the currencies in which those equity securities are denominated could affect the market value of the notes.

The correlation of the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the Equity Index are denominated and the value of the Equity Index refers to the relationship between the percentage changes in that exchange rate and the percentage changes in the value of the Equity Index. The direction of the correlation (whether positive or negative) and the extent of the correlation between the percentage changes in the exchange rate between the U.S. dollar and each of the currencies in which the equity securities composing the Equity Index are denominated and the percentage changes in the value of the Equity Index could affect the value of the notes.

For notes linked to a foreign Equity Index, an investment in the notes is subject to risks associated with non-U.S. securities markets.

The equity securities that compose a foreign Equity Index have been issued by non-U.S. companies. Investments in securities linked to the value of those non-U.S. equity securities involve risks associated with the securities markets in those countries, including risks of volatility in those markets, governmental intervention in those markets and cross shareholdings in companies in certain countries. Also, there is generally less publicly available information about companies in some of these jurisdictions than about U.S. companies that are subject to the reporting requirements of the Securities and Exchange Commission, and generally non-U.S. companies are subject to accounting, auditing and financial reporting standards and requirements and securities trading rules different from those applicable to U.S. reporting companies.

The prices of securities in non-U.S. markets may be affected by political, economic, financial and social factors in those markets, including changes in a country's government, economic and fiscal policies, currency exchange laws or other laws or restrictions. Moreover, the economies in those countries may differ favorably or unfavorably from the economy of the United States in such respects as growth of gross national product, rate of inflation, capital reinvestment, resources and self sufficiency. Those countries may be subjected to different and, in some cases, more adverse economic environments.

The economies of emerging market countries in particular face several concerns, including relatively unstable governments that may present the risks of nationalization of businesses, restrictions on foreign ownership and prohibitions on the repatriation of assets, and which may have less protection of property rights than more developed countries. These economies may also be based on only a few industries, be highly vulnerable to changes in local and global trade conditions and may suffer from extreme and volatile debt burdens or inflation rates. In addition, local securities markets may trade a small number of securities and may be unable to respond effectively to increases in trading volume, potentially making prompt liquidation of holdings difficult or impossible at times. The risks of the economies of emerging market countries are relevant for notes linked to a foreign Equity Index composed of securities traded in one or more emerging market countries.

Some or all of these factors may influence the closing level of the Equity Index. The impact of any of the factors set forth above may enhance or offset some or all of any change resulting from another factor or factors. You cannot predict the future performance of the Equity Index based on its historical performance. The value of the Equity Index may decrease such that you may not receive any return of your investment. There can be no assurance that the closing level of the Equity Index will not decrease so that at maturity or, if applicable, upon early repurchase you will not lose some or a substantial portion of your investment.

Risks Relating to the Volatility Index

The reported level of the Volatility Index may include the deduction of index fees or other adjustments.

One way in which the Volatility Index may differ from other indices is that its daily reported levels may include a deduction from the aggregate performance of the relevant VIX futures contracts of index fees or other adjustments. As a result of these deductions, the value of the Volatility Index will trail the value of a hypothetical identically constituted synthetic portfolio that is not subject to those index fees or other adjustments.

The VIX Index is a theoretical calculation and is not a tradable index.

The Volatility Index is designed to track one or more positions (long and/or short) in VIX futures contracts, which are, in turn, based on the VIX Index. The VIX Index is a theoretical calculation and cannot be traded on a spot price basis. The settlement price at maturity of the VIX futures contracts contained in the Volatility Index is based on this theoretically derived calculation. As a result, the behavior of the VIX futures contracts that are included in the Volatility Index may be different from futures contracts whose settlement prices are based on tradable assets.

Historical levels of comparable indices should not be taken as an indication of the future performance of the Volatility Index during the term of the notes.

It is impossible to predict whether the Volatility Index will rise or fall. The actual performance of the Volatility Index over the term of the notes, as well as any amount payable on the notes, may bear little relation to the historical levels of comparable indices, which in most cases have been highly volatile.

The settlement price of VIX futures contracts may not be readily available.

The official settlement prices of VIX futures contracts are calculated and published by the Chicago Board Options Exchange, Incorporated (the "**CBOE**") and are used to calculate the level of the Volatility Index. Any disruption or discontinuation in CBOE trading of the relevant VIX futures contracts could affect the availability of the official settlement prices. This may delay or prevent the calculation of the Volatility Index.

An increase in the margin requirements for VIX futures contracts included in the Volatility Index may adversely affect the value of the notes.

Futures exchanges require market participants to post collateral in order to open and to keep open positions in futures contracts. If an exchange increases the amount of collateral required to be posted to hold positions in VIX futures contracts underlying the Volatility Index, market participants who are unwilling or unable to post additional collateral may liquidate their positions, which may cause the price of the relevant VIX futures contracts to decline significantly. As a result, the level of the Volatility Index and the value of the notes may be adversely affected.

VIX futures contracts have limited historical information.

VIX futures contracts have only traded freely since March 26, 2004, and not all futures contracts of all relevant maturities have traded at all times since that date. Because the VIX futures contracts that underlie the Volatility Index are of recent origin and limited historical performance data exists with respect to them, your investment in the notes may involve a greater risk than investing in alternate securities linked solely to one or more financial measures with an established record of performance. The liquidity of trading in VIX futures contracts could decline in the future, which could affect adversely the Index Return of the Volatility Index.

The notes are not linked to the VIX Index, and the value of the notes may be less than it would have been had the notes been linked to the VIX Index.

The value of the notes will be linked, in part, to the value of the Volatility Index, and your ability to benefit from any rise or fall in the level of the VIX Index is limited. The Volatility Index is based upon holding a rolling synthetic long position and a contingent rolling synthetic short position in VIX futures contracts. The VIX futures contracts will not necessarily track the performance of the VIX Index or a long-short position in the VIX Index. The notes may not benefit from increases or decreases in the level of the VIX Index because such increases or decreases will not necessarily cause the price of the relevant VIX futures contracts to rise or fall. Accordingly, a hypothetical investment that was linked directly, in whole or in part, to the performance of the VIX Index (long or short) could generate a higher return than the notes.

The notes are not linked to the options used to calculate the VIX Index, to the actual volatility of the S&P 500® Index or to the equity securities included in the S&P 500® Index.

The VIX Index measures the 30-day forward volatility of the S&P 500® Index as calculated based on the prices of certain put and call options on the S&P 500® Index. The actual volatility of the S&P 500® Index may differ, perhaps significantly, from the level predicted by the VIX Index or from the prices of the put and call options included in the calculation of the VIX Index. The value of the notes is based in part on the value of the relevant VIX futures contracts included in the Volatility Index. The notes are not linked to the realized or implied volatility over a specific period of time and will not reflect the return you would realize if you owned, or held a short position in, the equity securities underlying the S&P 500® Index or traded put and call options used to calculate the level of the VIX Index or other instruments intended to provided a return equal to that of the VIX Index.

The CBOE, the sponsor of the VIX Index, and Standard & Poor's Financial Services LLC ("S&P"), the sponsor of the S&P 500® Index, may adjust the VIX Index and the S&P 500® Index, respectively, in a way that affects their levels, and CBOE and S&P have no obligation to consider your interests.

The CBOE is responsible for calculating and maintaining the VIX Index, and S&P is responsible for calculating and maintaining the S&P 500® Index. The CBOE can make methodological changes to the calculation of the VIX Index that could affect the value of VIX futures contracts and, consequently, the value of the Volatility Index and the notes. Additionally, the CBOE may alter, discontinue or suspend calculation or dissemination of the VIX Index and/or the exercise settlement value. S&P can add, delete or substitute the equity securities underlying the S&P 500® Index, respectively, or make other

methodological changes that could change the level of the S&P 500® Index. The changing of equity securities included in the S&P 500® Index may affect the S&P 500® Index, as a newly added equity security may perform significantly better or worse than the equity security or securities it replaces. Such a change may also affect the value of the put and call options used to calculate the level of the VIX Index. Additionally, the CBOE or S&P may alter, discontinue or suspend calculation or dissemination of the VIX Index and the S&P 500® Index, respectively.

Any of these actions by the CBOE or S&P could adversely affect the value of the Volatility Index and the notes. The CBOE and S&P have no obligation to consider your interests in calculating or revising the VIX Index and the S&P 500® Index, respectively. See "Background on the CBOE Volatility Index®" and "The S&P 500® Index" below for additional information.

One or more separate underlying supplements or the relevant terms supplement may provide additional risk factors relating to the Indices.

USE OF PROCEEDS AND HEDGING

Unless otherwise specified in the relevant terms supplement, the net proceeds we receive from the sale of the notes will be used for general corporate purposes and, in part, by us or by one or more of our affiliates in connection with hedging our obligations under the notes. The original issue price of the notes includes each agent's commissions (as shown on the cover page of the relevant terms supplement) paid with respect to the notes and the estimated cost of hedging our obligations under the notes. We may have hedged our obligations under the notes through certain affiliates or unaffiliated counterparties.

Unless otherwise specified in the relevant terms supplement, each agent's commission will include the projected profit that our affiliates expect to realize in consideration for assuming the risks inherent in hedging our obligations in respect of the Equity Index. The estimated cost of hedging also includes the profit our affiliates expect to realize in consideration for assuming the risks inherent in providing and managing such hedge and, if we or an affiliate of ours is the sponsor or calculation agent for the Volatility Index, for maintaining the Volatility Index during the term of the notes through, among other things, any adjustment that is intended to reflect transaction costs or other costs that may be incurred in replicating the investment strategy underlying the Index deducted from the level of the Index. Because hedging our obligations entails risk and may be influenced by market forces beyond our control, this hedging may result in a profit that is more or less than expected, or could result in a loss. See also "Use of Proceeds" in the accompanying prospectus.

On or prior to the date of the relevant terms supplement, we, through our affiliates or others, expect to hedge some or all of our anticipated exposure in connection with the notes. In addition, from time to time after we issue the notes, we, through our affiliates or others, may enter into additional hedging transactions and close out or unwind those we have entered into, in connection with the notes and possibly in connection with our or our affiliates' exposure to one or both Indices or the equity securities or futures contracts included in the Indices. To accomplish this, we, through our affiliates or others, may take positions in one or both Indices or the equity securities or futures contracts included in the Indices or instruments the value of which is derived from the Indices or the equity securities or futures contracts included in the Indices. From time to time, prior to maturity of the notes, we may pursue a dynamic hedging strategy that may involve taking long or short positions in the instruments described above.

While we cannot predict an outcome, any of these hedging activities or other trading activities of ours or our affiliates could potentially increase the level of an Index on the pricing date and/or decrease the closing level of an Index on any Determination Date, which could cause the notes to be accelerated or otherwise adversely affect any payment on the notes. It is possible that those hedging or trading activities could result in substantial returns for us or our affiliates while the value of the notes declines. For example, if we or an affiliate of ours is the sponsor or calculation agent for the Volatility Index, in connection with the maintenance of the Volatility Index, JPMS may receive a portion of the aggregate profits, if any, that may be generated from time to time related to some portion of the deduction of an adjustment deducted from the level of the Volatility Index. See "Risk Factors — We or our affiliates may have economic interests that are adverse to those of the holders of the notes as a result of our hedging and other trading activities" above.

We have no obligation to engage in any manner of hedging activity and will do so solely at our discretion and for our own account. We may hedge our exposure on the notes directly or we may aggregate this exposure with other positions taken by us and our affiliates with respect to our exposure to one or both Indices or their underlying equity securities or futures contracts. No note holder will have any rights or interest in our hedging activity or any positions that we or any unaffiliated counterparties may take in connection with our hedging activity.

THE INDICES

One or more separate underlying supplements or the relevant terms supplement will provide additional information relating to the Indices to which the notes are linked.

Conflicts of Interest

See the relevant terms supplement, any relevant underlying supplement and "Risk Factors — Risks Relating to the Notes Generally — We or our affiliates may have economic interests that are adverse to those of the holders of the notes as a result of our business activities" above for information about economic interests with respect to the Indices that we or our affiliates may have that are adverse to your interests.

Historical Performance of the Indices

We will provide historical level information on the Indices in the relevant terms supplement. You should not take any of those historical levels as an indication of future performance. Neither we nor any of our affiliates makes any representation to you as to the performance of the Indices.

GENERAL TERMS OF NOTES

Note Calculation Agent

J.P. Morgan Securities LLC, one of our affiliates, will act as the calculation agent for the notes (the "**Note Calculation Agent**"). The Note Calculation Agent will determine, among other things, each Initial Index Level, each Ending Index Level, each Index Return, the Average Index Return on each Valuation Date for purposes of determining whether an Acceleration Trigger Event has occurred, the Repurchase Fee Amount, if applicable, and any payment on the notes. In addition, the Note Calculation Agent will determine, among other things:

- whether a market disruption event has occurred; and
- whether an Index has been discontinued, whether the method of calculating an Index has changed in a material respect and whether an Index has been otherwise modified so that it does not, in the opinion of the Note Calculation Agent, fairly represent the level of that Index had those changes or modifications not been made and, if applicable, which index to select as a successor index.

All determinations made by the Note Calculation Agent will be at the sole discretion of the Note Calculation Agent and will, in the absence of manifest error, be conclusive for all purposes and binding on you and on us. We may appoint a different Note Calculation Agent from time to time after the date of the relevant terms supplement without your consent and without notifying you.

The Note Calculation Agent will provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, of any amount payable on the notes on or prior to 11:00 a.m., New York City time, on the business day preceding the Maturity Date or the Repurchase Date, as applicable.

All calculations with respect to each Initial Index Level, each Ending Index Level, each Index Return, each Average Index Return and each closing level of each Index will be rounded to the nearest one hundred-thousandth, with five one-millionths rounded upward (*e.g.*, 0.876545 would be rounded to 0.87655); all dollar amounts related to determination of the Repurchase Fee Amount, if applicable, and any payment per $1,000 principal amount note on the notes will be rounded to the nearest ten-thousandth, with five one hundred-thousandths rounded upward (*e.g.*, 0.76545 would be rounded up to 0.7655); and all dollar amounts paid, if any, on the aggregate principal amount of notes per holder will be rounded to the nearest cent, with one-half cent rounded upward.

Market Disruption Events

Certain events may prevent the Note Calculation Agent from calculating the closing level of an Index on one or more Determination Dates, or an Index Return for purposes of calculating the Average Index Return to determine whether an Acceleration Trigger Event has occurred or any amount that we are required to pay you on the notes. These events may include disruptions or suspensions of trading on the markets as a whole.

Market Disruption Events for the Equity Index

With respect to the Equity Index and any relevant successor index, a "**market disruption event**," unless otherwise specified in the relevant terms supplement, means:

- the occurrence or existence of a suspension, absence or material limitation of trading of equity securities then constituting 20% or more of the level of the Equity Index (or that successor index) on the relevant exchanges for those securities for more than two hours of trading during, or during the one-hour period preceding the close of, the principal trading session on the relevant exchange;

- a breakdown or failure in the price and trade reporting systems of any relevant exchange as a result of which the reported trading prices for equity securities then constituting 20% or more of the level of the Equity Index (or that successor index) during the one hour preceding the close of the principal trading session on that relevant exchange are materially inaccurate;

- the occurrence or existence of a suspension, absence or material limitation of trading on the primary exchange or market for trading in futures or options contracts related to the Equity Index (or that successor index) for more than two hours of trading during, or during the one-hour period preceding the close of, the principal trading session on that exchange or market; or

- a decision to permanently discontinue trading in those related futures or options contracts,

in each case as determined by the Note Calculation Agent in its sole discretion; and

- a determination by the Note Calculation Agent in its sole discretion that the applicable event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the notes.

For purposes of determining whether a market disruption event with respect to the Equity Index (or the relevant successor index) exists at any time, if trading in a security included in the Equity Index (or the relevant successor index) is materially suspended or materially limited at that time, then the relevant percentage contribution of that security to the level of the Equity Index (or the relevant successor index) will be based on a comparison of:

- the portion of the level of the Equity Index (or that successor index) attributable to that security relative to

- the overall level of the Equity Index (or that successor index),

in each case immediately before that suspension or limitation.

For purposes of determining whether a market disruption event with respect to the Equity Index (or the relevant successor index) has occurred, unless otherwise specified in the relevant terms supplement:

- a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange, or the primary exchange or market for trading in futures or options contracts related to the Equity Index (or the relevant successor index);

- limitations pursuant to the rules of any relevant exchange similar to New York Stock Exchange ("**NYSE**") Rule 80B (or any applicable rule or regulation enacted or promulgated by any other self-regulatory organization or any government agency of scope similar to NYSE Rule 80B as determined by the Note Calculation Agent) on trading during significant market fluctuations will constitute a suspension, absence or material limitation of trading;

- a suspension of trading in futures or options contracts on the Equity Index (or that successor index) by the primary exchange or market for trading in those contracts by reason of:

  - a price change exceeding limits set by that exchange or market,

  - an imbalance of orders relating to those contracts or

- a disparity in bid and ask quotes relating to those contracts

will, in each case, constitute a suspension, absence or material limitation of trading in futures or options contracts related to the Equity Index (or that successor index); and

- a "suspension, absence or material limitation of trading" on any relevant exchange or on the primary exchange or market on which futures or options contracts related to the Equity Index (or that successor index) are traded will not include any time when that exchange or market is itself closed for trading under ordinary circumstances.

Market Disruption Events for the Volatility Index

With respect to the Volatility Index or any relevant successor index, a "**market disruption event**," unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, means:

- the termination or suspension of, or material limitation or disruption in the trading of any relevant VIX futures contract on the relevant exchange, which will not include any time when the relevant exchange is itself closed for trading under ordinary circumstances;

- the price at any time of any relevant VIX futures contract has increased or decreased by an amount equal to the maximum permitted price change set by the relevant exchange;

- a failure by the relevant exchange to calculate and publish the official settlement price or final settlement value, as applicable, of any relevant VIX futures contract on any day upon which the official settlement price or final settlement value, as applicable, of that futures contract is scheduled to be calculated and published by the relevant exchange;

- any event that disrupts or impairs the ability of market participants generally to effect transactions in or obtain market values for any relevant VIX futures contract;

- the closure by the relevant exchange on any day on which the relevant exchange is open for trading during its regular trading session prior to its scheduled closing time, unless such earlier closing time is announced by the relevant exchange at least one hour prior to the actual closing time for the regular trading session on the relevant exchange;

- the occurrence of a material change in the formula for or the method of calculating the official settlement price of any relevant VIX futures contract;

- the occurrence of a material change in the content, composition or constitution of any relevant VIX futures contract; or

- the failure of the sponsor or calculation agent of the Volatility Index (or that successor index) to calculate and publish the official closing level of the Volatility Index,

in each case as determined by the Note Calculation Agent in its sole discretion; and

- a determination by the Note Calculation Agent in its sole discretion that the applicable event described above materially interfered with our ability or the ability of any of our affiliates to adjust or unwind all or a material portion of any hedge with respect to the notes.

For purposes of determining whether a market disruption event with respect to the Volatility Index (or the relevant successor index) has occurred, unless otherwise specified in the relevant terms supplement, a limitation on the hours or number of days of trading will not constitute a market disruption event if it results from an announced change in the regular business hours of the relevant exchange.

Discontinuation of an Index; Alteration of Method of Calculation

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, if the sponsor of an Index (the "**Index Sponsor**") discontinues publication of the Index and the Index Sponsor or another entity publishes a successor or substitute index that the Note Calculation Agent determines, in its sole discretion, to be comparable to the discontinued Index (such index being referred to herein as a "**successor index**"), then the closing level of the Index on any Determination Date or any other relevant date on which the closing level of the Index is to be determined will be determined by reference to the level of that successor index at the close of trading on the relevant exchange for that successor index on that day.

Upon any selection by the Note Calculation Agent of a successor index, the Note Calculation Agent will cause written notice thereof to be promptly furnished to the trustee, to us and to the holders of the notes.

Unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, if the Index Sponsor discontinues publication of the Index prior to, and that discontinuation is continuing on, any Determination Date or any other relevant date on which the closing level of the applicable Index is to be determined, and the Note Calculation Agent determines, in its sole discretion, that no successor index for the Index is available at that time, or the Note Calculation Agent has previously selected a successor index and publication of that successor index is discontinued prior to, and that discontinuation is continuing on, any Determination Date or that other relevant date, then the Note Calculation Agent will determine the closing level of the Index for that date. The closing level of the Index will be computed by the Note Calculation Agent in accordance with the formula for and method of calculating the Index or successor index, as applicable, last in effect prior to that discontinuation, using:

(a) if the Index is the Equity Index, the closing price (or, if trading in the relevant securities has been materially suspended or materially limited, the Note Calculation Agent's good faith estimate of the closing price that would have prevailed but for that suspension or limitation) at the close of the principal trading session on that date of each security most recently composing the Equity Index or successor index, as applicable; and

(b) if the Index is the Volatility Index, unless otherwise specified in the relevant terms supplement or any relevant underlying supplement, the official settlement price (or, if trading in the relevant VIX futures contracts has been materially suspended or materially limited, the Note Calculation Agent's good faith estimate of the official settlement price that would have prevailed but for that suspension or limitation) at the close of the principal trading session on that date of each VIX futures contract most recently composing the Volatility Index or successor index, as applicable, and any VIX futures contract required to roll any expiring futures contract in accordance with the method of calculating the Volatility Index or successor index, as applicable.

Notwithstanding these alternative arrangements, discontinuation of the publication of an Index or its successor index, as applicable, may adversely affect the value of the notes.

If at any time the method of calculating an Index or a successor index, or the level thereof, is changed in a material respect, or if an Index or a successor index is in any other way modified (including, but not limited to, a change in the futures contracts that compose the Volatility Index or a successor index) so that the Index or successor index does not, in the opinion of the Note Calculation Agent, fairly represent the level of the Index or successor index had those changes or modifications not been made, then the Note Calculation Agent will, at the close of business in New York City on each date on which the closing level of the Index is to be determined, make those calculations and adjustments as, in the good faith judgment of the Note Calculation Agent, may be necessary in order

to arrive at a level of an index comparable to the Index or successor index, as the case may be, as if those changes or modifications had not been made, and the Note Calculation Agent will calculate the closing level of the Index with reference to the Index or successor index, as adjusted. Accordingly, if the method of calculating the Index or successor index is modified so that the level of the Index or successor index is a fraction of what it would have been if there had been no such modification (*e.g.*, due to a split in the Index), then the Note Calculation Agent will adjust its calculation of the Index or successor index in order to arrive at a level of the Index or successor index as if there had been no such modification (*e.g.*, as if such split had not occurred).

Events of Default

Under the heading "Description of Debt Securities — Events of Default and Waivers" in the accompanying prospectus is a description of events of default relating to debt securities including the notes.

Payment upon an Event of Default

Unless otherwise specified in the relevant terms supplement, in case an event of default with respect to the notes shall have occurred and be continuing, the amount declared due and payable per $1,000 principal amount note upon any acceleration of the notes will be determined by the Note Calculation Agent and will be an amount in cash equal to the amount payable at maturity per $1,000 principal amount note as described under the caption "Description of Notes — Payment at Maturity," calculated as if the date of acceleration were the Observation Date, unless otherwise specified in the relevant terms supplement.

If the relevant terms supplement specifies Ending Averaging Dates, then, for each Ending Averaging Date scheduled to occur after the date of acceleration, the trading days immediately preceding the date of acceleration (in such number equal to the number of Ending Averaging Dates in excess of one) will be the corresponding Ending Averaging Dates, unless otherwise specified in the relevant terms supplement.

If the maturity of the notes is accelerated because of an event of default as described above, we will, or will cause the Note Calculation Agent to, provide written notice to the trustee at its New York office, on which notice the trustee may conclusively rely, and to DTC of the cash amount due with respect to the notes as promptly as possible and in no event later than two business days after the date of acceleration.

Modification

Under the heading "Description of Debt Securities — Modification of the Indenture" in the accompanying prospectus is a description of when the consent of each affected holder of debt securities is required to modify the indenture.

Defeasance

The provisions described in the accompanying prospectus under the heading "Description of Debt Securities — Discharge, Defeasance and Covenant Defeasance" are not applicable to the notes, unless otherwise specified in the relevant terms supplement.

Listing

The notes will not be listed on any securities exchange, unless otherwise specified in the relevant terms supplement.

Book-Entry Only Issuance — The Depository Trust Company

DTC will act as securities depositary for the notes. The notes will be issued only as fully-registered securities registered in the name of Cede & Co. (DTC's nominee). One or more fully-registered global notes certificates, representing the total aggregate principal amount of the notes, will be issued and will be deposited with DTC. See the descriptions contained in the accompanying prospectus supplement under the heading "Description of Notes — Forms of Notes" and in the accompanying prospectus under the heading "Forms of Securities — Book-Entry System."

Registrar, Transfer Agent and Paying Agent

Payment of amounts due on the notes will be payable and the transfer of the notes will be registrable at the principal corporate trust office of The Bank of New York Mellon in The City of New York.

The Bank of New York Mellon or one of its affiliates will act as registrar and transfer agent for the notes. The Bank of New York Mellon will also act as paying agent and may designate additional paying agents.

Registration of transfers of the notes will be effected without charge by or on behalf of The Bank of New York Mellon, but upon payment (with the giving of such indemnity as The Bank of New York Mellon may require) in respect of any tax or other governmental charges that may be imposed in relation to it.

Governing Law

The notes will be governed by and interpreted in accordance with the laws of the State of New York.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a discussion of the material U.S. federal income tax consequences of owning and disposing of the notes. It applies to you only if you are an initial investor who purchases a note at its issue price for cash and holds it as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the "Code").

This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to you in light of your particular circumstances, including the potential application of the provision of the Code known as the Medicare contribution tax and the different consequences that may apply if you are an investor subject to special treatment under the U.S. federal income tax laws, such as:

- a financial institution;
- a "regulated investment company" as defined in Code Section 851;
- a tax-exempt entity, including an "individual retirement account" or "Roth IRA" as defined in Code Section 408 or 408A, respectively;
- a dealer in securities;
- a person holding a note as part of a "straddle" or conversion transaction, or who has entered into a "constructive sale" with respect to a note;
- a U.S. Holder (as defined below) whose functional currency is not the U.S. dollar;
- a trader in securities who elects to apply a mark-to-market method of tax accounting; or
- a partnership or other entity classified as a partnership for U.S. federal income tax purposes.

This discussion is based on the Code, administrative pronouncements, judicial decisions and final, temporary and proposed Treasury regulations as of the date of this product supplement, changes to any of which, subsequent to the date hereof, may affect the tax consequences described herein. The effects of any applicable state, local or foreign tax laws are not discussed. **You should consult your tax adviser concerning the application of U.S. federal income and estate tax laws to your particular situation (including the possibility of alternative treatments of the notes), as well as any tax consequences arising under the laws of state, local or foreign jurisdictions.**

Tax Treatment of the Notes

The tax consequences of an investment in the notes are uncertain. There is no direct legal authority as to the proper U.S. federal income tax treatment of the notes, and we do not intend to request a ruling from the IRS regarding the notes. Unless otherwise indicated in the relevant terms supplement, insofar as we have tax reporting responsibilities with respect to your notes, we intend to treat them as "open transactions" that are not debt instruments for U.S. federal income tax purposes.

At the time of the relevant offering, we may seek an opinion of counsel regarding the tax consequences of owning and disposing of the notes. In this event, whether or not counsel is able to opine regarding the correctness of the treatment of the notes described above, we generally expect that counsel will be able to opine that the following are the material tax consequences of owning and disposing of the notes if the treatment of the notes described above is respected, as well as material tax consequences that may apply if it is not respected. The following discussion assumes this treatment is respected, except where otherwise indicated. The relevant terms supplement may indicate other issues applicable to a particular offering of notes.

Tax Consequences to U.S. Holders

You are a "U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a note that is:

- a citizen or individual resident of the United States;
- a corporation created or organized in or under the laws of the United States, any state therein or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

Tax Treatment as Open Transactions That Are Not Debt Instruments. Under this treatment, you should not recognize taxable income or loss with respect to the notes other than pursuant to a sale or exchange (including at maturity, upon early repurchase, upon the occurrence of a "deemed" taxable exchange as described below or upon the occurrence of an Acceleration Trigger Event). Upon a sale or exchange of a note, you should recognize capital gain or loss equal to the difference between the amount realized on the sale or exchange and your tax basis in the note, which should equal the amount you paid to acquire it. This gain or loss should be long-term capital gain or loss if you have held the note for more than one year at that time. The deductibility of capital losses is subject to limitations.

Potential Deemed Taxable Exchange upon Index Rebalancing. The IRS could assert that a "deemed" taxable exchange has occurred on one or more rebalancing dates of the Volatility Index. If the IRS were successful in asserting that a taxable exchange has occurred, you could be required to recognize gain (but probably not loss), which would equal the amount by which the fair market value of the note on the relevant rebalancing date exceeds your tax basis. Any gain recognized on a "deemed" taxable exchange should be capital gain. You should consult your tax adviser regarding the possible U.S. federal income tax consequences of rebalancings.

Uncertainties Regarding Tax Treatment as Open Transactions That Are Not Debt Instruments. If the notes are treated as open transactions that are not debt instruments, due to the lack of controlling authority there remain significant additional uncertainties regarding the tax consequences of owning and disposing of them. For instance, you might be required to include amounts in income during the term of your notes and/or to treat all or a portion of the gain or loss on the sale or exchange of your notes as ordinary income or loss or as short-term capital gain or loss, without regard to how long you have held them. In addition, in 2007 Treasury and the IRS released a notice requesting comments on the U.S. federal income tax treatment of "prepaid forward contracts" and similar instruments. The notice focuses in particular on whether to require investors in these instruments to accrue income over the term of their investment. It also asks for comments on a number of related topics, including the character of income or loss with respect to these instruments; the relevance of factors such as the nature of the underlying property to which the instruments are linked; and whether these instruments are or should be subject to the "constructive ownership" regime, which very generally can operate to recharacterize certain long-term capital gain as ordinary income and impose a notional interest charge. While the notice requests comments on appropriate transition rules and effective dates, any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the tax consequences of an investment in the notes, possibly with retroactive effect.

Tax Consequences if Treated as Debt Instruments. If the notes are treated as debt instruments, your tax consequences will be governed by Treasury regulations relating to the taxation of "contingent payment debt instruments" if the term of the notes from issue to maturity (including the last possible date that the notes could be outstanding) is more than one year. In this event, regardless of whether you are an accrual-method or cash-method taxpayer, (i) in each year that you hold your notes, you will be required to accrue into income original issue discount on your notes at our "comparable yield" for

similar noncontingent debt, determined at the time of the issuance of the notes (even though you will not receive any cash with respect to the notes prior to maturity, an early repurchase or an Acceleration Trigger Event) and (ii) any income recognized upon a sale or exchange of your notes generally will be treated as interest income. Additionally, if you recognize a loss above certain thresholds, you might be required to file a disclosure statement with the IRS.

Tax Consequences to Non-U.S. Holders

You are a "Non-U.S. Holder" if for U.S. federal income tax purposes you are a beneficial owner of a note that is:

- a nonresident alien individual;
- a foreign corporation; or
- a foreign estate or trust.

You are not a "Non-U.S. Holder" for purposes of this discussion if you are an individual present in the United States for 183 days or more in the taxable year of disposition. In this case, you should consult your tax adviser regarding the U.S. federal income tax consequences of the sale or exchange of a note (including at maturity, upon early repurchase, upon the occurrence of a "deemed" taxable exchange as described below or upon the occurrence of an Acceleration Trigger Event).

Tax Treatment as Open Transactions. If you are a Non-U.S. Holder of a note and if the treatment of the notes as "open transactions" that are not debt instruments is respected, any income or gain from the note should not be subject to U.S. federal income or withholding tax unless it is effectively connected with your conduct of a U.S. trade or business (and, if an applicable treaty so requires, attributable to a permanent establishment in the United States). However, among the issues addressed in the notice described above in "—Tax Consequences to U.S. Holders—Uncertainties Regarding Tax Treatment as Open Transactions That Are Not Debt Instruments" is the degree, if any, to which income with respect to instruments described therein should be subject to U.S. withholding tax. Any Treasury regulations or other guidance promulgated after consideration of these issues could materially and adversely affect the withholding tax consequences of an investment in the notes, possibly with retroactive effect.

Tax Consequences if Treated as Debt Instruments. If the notes are treated as debt instruments, subject to the following two sentences, any income or gain from a note will be exempt from U.S. federal income tax (including withholding tax) if you provide a properly completed IRS Form W-8BEN and these amounts are not effectively connected with your conduct of a U.S. trade or business. If your notes are issued (or "deemed" exchanged) after December 31, 2013, then under legislation enacted in 2010 and regulations promulgated thereunder, a withholding tax of 30% will be imposed on certain amounts paid on the notes to certain foreign entities (including financial intermediaries) unless various U.S. information reporting and due diligence requirements (that are in addition to, and significantly more onerous than, the requirement to deliver an IRS Form W-8BEN) have been satisfied. This regime would apply to amounts treated as interest on the notes paid after December 31, 2013 and to amounts treated as proceeds of the sale or exchange (including retirement) of the notes paid after December 31, 2016.

Effectively Connected Income. If you are engaged in a U.S. trade or business, and if income or gain from a note is effectively connected with your conduct of that trade or business (and, if an applicable treaty so requires, is attributable to a permanent establishment in the United States), although exempt from the withholding taxes discussed above, you generally will be taxed in the same manner as a U.S. Holder. You will not be subject to withholding if you provide a properly completed IRS Form W-8ECI. If this paragraph applies to you, you should consult your tax adviser with respect to other U.S. tax consequences of owning and disposing of notes, including the possible imposition of a 30% branch profits tax if you are a corporation.

Federal Estate Tax

Individual Non-U.S. Holders, and entities the property of which is potentially includible in those individuals' gross estates for U.S. federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable treaty benefit, a note is likely to be treated as U.S.-situs property, subject to U.S. federal estate tax. These individuals and entities should consult their tax advisers regarding the U.S. federal estate tax consequences of investing in a note.

Backup Withholding and Information Reporting

You may be subject to information reporting. You may also be subject to backup withholding on payments in respect of your notes unless you provide proof of an applicable exemption or a correct taxpayer identification number and otherwise comply with applicable requirements of the backup withholding rules. If you are a Non-U.S. Holder, you will not be subject to backup withholding if you provide a properly completed IRS Form W-8 appropriate to your circumstances. Amounts withheld under the backup withholding rules are not additional taxes and may be refunded or credited against your U.S. federal income tax liability, provided the required information is furnished to the IRS.

THE TAX CONSEQUENCES TO YOU OF OWNING AND DISPOSING OF NOTES ARE UNCERTAIN. YOU SHOULD CONSULT YOUR TAX ADVISER REGARDING THE TAX CONSEQUENCES OF OWNING AND DISPOSING OF NOTES, INCLUDING THE TAX CONSEQUENCES UNDER STATE, LOCAL, FOREIGN AND OTHER TAX LAWS AND THE POSSIBLE EFFECTS OF CHANGES IN U.S. FEDERAL OR OTHER TAX LAWS.

PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

Under the terms and subject to the conditions contained in the Master Agency Agreement entered into between JPMorgan Chase & Co. and J.P. Morgan Securities LLC, as agent (an "Agent" or "JPMS"), and certain other agents that are or may become party to the Master Agency Agreement, as amended or supplemented, from time to time (each an "Agent" and collectively with JPMS, the "Agents"), JPMS has agreed and any additional Agents will agree to use reasonable efforts to solicit offers to purchase the principal amount of notes set forth in the cover page of the relevant terms supplement. We will have the sole right to accept offers to purchase the notes and may reject any offer in whole or in part. Each Agent may reject, in whole or in part, any offer it solicited to purchase notes. We will pay an Agent, in connection with sales of these notes resulting from a solicitation that Agent made or an offer to purchase the Agent received, a commission as set forth in the relevant terms supplement. An Agent will allow a concession to other dealers, or we may pay other fees, in the amount set forth on the cover page of the relevant terms supplement.

We may also sell notes to an Agent as principal for its own account at discounts to be agreed upon at the time of sale as disclosed in the relevant terms supplement. That Agent may resell notes to investors and other purchasers at a fixed offering price or at prevailing market prices, or prices related thereto at the time of resale or otherwise, as that Agent determines and as we will specify in the relevant terms supplement. An Agent may offer the notes it has purchased as principal to other dealers. That Agent may sell the notes to any dealer at a discount and, unless otherwise specified in the relevant terms supplement, the discount allowed to any dealer will not be in excess of the discount that Agent will receive from us. After the initial public offering of notes that the Agent is to resell on a fixed public offering price basis, the Agent may change the public offering price, concession and discount.

Unless otherwise specified in the relevant terms supplement, if we or an affiliate of ours is the sponsor or calculation agent for the Volatility Index, JPMS, as an Agent, will receive the aggregate profits generated from the deduction of any index fees to cover ongoing payments related to the distribution of the notes and as a structuring fee for developing the notes. A portion of these profits may be used to allow selling concessions to other dealers.

Payments constituting underwriting compensation will not exceed a total of 8% of offering proceeds.

Our affiliates, including JPMS, may use this product supplement no. 32-II, any underlying supplement and the accompanying prospectus supplement, prospectus or terms supplement in connection with offers and sales of the notes in the secondary market. JPMS or another Agent may act as principal or agent in connection with offers and sales of the notes in the secondary market. Secondary market offers and sales will be made at prices related to market prices at the time of such offer or sale; accordingly, the Agents or a dealer may change the public offering price, concession and discount after the offering has been completed.

Unless otherwise specified in the relevant terms supplement, there is currently no public trading market for the notes. In addition, unless otherwise specified in the relevant terms supplement, we have not applied and do not intend to apply to list the notes on any securities exchange or to have the notes quoted on a quotation system. JPMS may act as a market maker for the notes. However, JPMS is not obligated to do so and may discontinue any market-making in the notes at any time in its sole discretion. Therefore, we cannot assure you that a liquid trading market for the notes will develop, that you will be able to sell your notes at a particular time or that the price you receive if you sell your notes will be favorable.

In connection with an offering of the notes, JPMS may engage in overallotment, stabilizing transactions and syndicate covering transactions in accordance with Regulation M under the Securities Exchange Act of 1934. Overallotment involves sales in excess of the offering size, which create a short position for JPMS. Stabilizing transactions involve bids to purchase the notes in the open market for

the purpose of pegging, fixing or maintaining the price of the notes. Syndicate covering transactions involve purchases of the notes in the open market after the distribution has been completed in order to cover short positions. Stabilizing transactions and syndicate covering transactions may cause the price of the notes to be higher than it would otherwise be in the absence of those transactions. If JPMS engages in stabilizing or syndicate covering transactions, it may discontinue them at any time.

Certain of the Agents engage in transactions with and perform services for us and our subsidiaries in the ordinary course of business.

No action has been or will be taken by us, JPMS or any dealer that would permit a public offering of the notes or possession or distribution of this product supplement no. 32-II, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement, other than in the United States, where action for that purpose is required. No offers, sales or deliveries of the notes, or distribution of this product supplement no. 32-II, any related underlying supplement or the accompanying prospectus supplement, prospectus or terms supplement or any other offering material relating to the notes, may be made in or from any jurisdiction except in circumstances which will result in compliance with any applicable laws and regulations and will not impose any obligations on us, the Agents or any dealer.

Each Agent has represented and agreed that it will not offer or sell the notes in any non-U.S. jurisdiction (i) if that offer or sale would not be in compliance with any applicable law or regulation or (ii) if any consent, approval or permission is needed for that offer or sale by that Agent or for or on our behalf, unless the consent, approval or permission has been previously obtained. We will have no responsibility for, and the applicable Agent will obtain, any consent, approval or permission required by that Agent for the subscription, offer, sale or delivery by that Agent of the notes, or the distribution of any offering materials, under the laws and regulations in force in any non-U.S. jurisdiction to which that Agent is subject or in or from which that Agent makes any subscription, offer, sale or delivery. For additional information regarding selling restrictions, please see "Notice to Investors" in this product supplement.

Unless otherwise specified in the relevant terms supplement, the settlement date for the notes will be the third business day following the pricing date (which is referred to as a "T+3" settlement cycle).

Conflicts of Interest

We own, directly or indirectly, all of the outstanding equity securities of JPMS. The net proceeds received from the sale of the notes will be used, in part, by JPMS or one of its affiliates in connection with hedging our obligations under the notes. The underwriting arrangements for this offering will comply with the requirements of FINRA Rule 5121 regarding a FINRA member firm's underwriting of securities of an affiliate. In accordance with FINRA Rule 5121, neither JPMS nor any other affiliated Agent of ours may make sales in this offering to any of its discretionary accounts without the prior written approval of the customer.

NOTICE TO INVESTORS

We will offer to sell, and will seek offers to buy, the notes only in jurisdictions where offers and sales are permitted. None of the accompanying prospectus supplement and prospectus, this product supplement no. 32-II, any related underlying supplement and the terms supplement (each, a "Disclosure Document" and, collectively, the "Disclosure Documents") will constitute an offer to sell, or a solicitation of an offer to buy, the notes by any person in any jurisdiction in which it is unlawful for that person to make an offer or solicitation. Neither the delivery of any Disclosure Document nor any sale made thereunder implies that our affairs have not changed or that the information in any Disclosure Document is correct as of any date after the date thereof.

You must (i) comply with all applicable laws and regulations in force in any jurisdiction in connection with the possession or distribution of the Disclosure Documents and the purchase, offer or sale of the notes and (ii) obtain any consent, approval or permission required to be obtained by you for the purchase, offer or sale by you of the notes under the laws and regulations applicable to you in force in any jurisdiction to which you are subject or in which you make those purchases, offers or sales.

Argentina

The notes have not been and will not be authorized by the *Comisión Nacional de Valores* (the "CNV") for public offer in Argentina and therefore may not be offered or sold to the public at large or to sectors or specific groups thereof by any means, including, but not limited to, personal offerings, written materials, advertisements, the internet or the media, in circumstances that constitute a public offering of securities under Argentine Law No. 17,811, as amended (the "Argentine Public Offering Law").

The Argentine Public Offering Law does not expressly recognize the concept of private placement. Notwithstanding the foregoing, pursuant to the general rules on public offering and the few existing judicial and administrative precedents, the following private placement rules have been outlined:

(i) Targeted investors should be qualified or sophisticated investors, capable of understanding the risk of the proposed investment.

(ii) Investors should be contacted on an individual, direct and confidential basis, without using any type of massive means of communication.

(iii) The number of contacted investors should be relatively small.

(iv) Investors should receive complete and precise information on the proposed investment.

(v) Any material, brochures, documents, etc, regarding the investment should be delivered in a personal and confidential manner, identifying the name of the recipient.

(vi) The documents or information mentioned in item (v) should contain a legend or statement expressly stating that the offer is a private offer not subject to the approval or supervision of the CNV, or any other regulator in Argentina.

(vii) The aforementioned documents or materials should also contain a statement prohibiting the re-sale or re-placement of the relevant securities within the Argentine territory or their sale through any type of transaction that may constitute a public offering of securities pursuant to Argentine law.

The Bahamas

The notes will not be offered or sold in or into The Bahamas except in circumstances that do not constitute a "public offering" according to the Securities Industry Act, 1999. The offer of the notes, directly or indirectly, in or from within The Bahamas may only be made by an entity or person who is licensed as a Broker Dealer by the Securities Commission of The Bahamas. Persons deemed "resident" in The Bahamas pursuant to the Exchange Control Regulations, 1956 must receive the prior approval of the Central Bank of The Bahamas prior to accepting an offer to purchase any notes.

Bermuda

The Disclosure Documents have not been and will not be registered or filed with any regulatory authority in Bermuda. The offering of the notes pursuant to the Disclosure Documents to persons resident in Bermuda is not prohibited, *provided* we are not thereby carrying on business in Bermuda.

Brazil

The notes have not been and will not be registered with the "*Comissão de Valores Mobiliários*" — the Brazilian Securities and Exchange Commission ("CVM") and accordingly, the notes may not and will not be sold, promised to be sold, offered, solicited, advertised and/or marketed within the Federal Republic of Brazil, except in circumstances that cannot be construed as a public offering or unauthorized distribution of securities under Brazilian laws and regulations. The notes are not being offered into Brazil. Documents relating to an offering of the notes, including the Disclosure Documents, as well as the information contained therein, may not be supplied or distributed to the public in Brazil nor be used in connection with any offer for subscription or sale of the notes to the public in Brazil.

British Virgin Islands

The notes may not be offered in the British Virgin Islands unless we or the person offering the notes on our behalf is licensed to carry on business in the British Virgin Islands. We are not licensed to carry on business in the British Virgin Islands. The notes may be offered to British Virgin Islands "business companies" (from outside the British Virgin Islands) without restriction. A British Virgin Islands "business company" is a company formed under or otherwise governed by the BVI Business Companies Act, 2004 (British Virgin Islands).

Cayman Islands

The Disclosure Documents and the notes have not been and will not be registered under the laws and regulations of the Cayman Islands, nor has any regulatory authority in the Cayman Islands passed comment upon or approved the accuracy or adequacy of the Disclosure Documents. The notes will not be offered or sold, directly or indirectly, in the Cayman Islands.

Chile

The Agents, we and the notes have not been and will not be registered with the *Superintendencia de Valores y Seguros de Chile* (Chilean Securities and Insurance Commission) pursuant to *Ley No. 18,045 de Mercado de Valores* (the "Chilean Securities Act"), as amended, of the Republic of Chile and, accordingly, the notes will not be offered or sold within Chile or to, or for the account of benefit of, persons in Chile, except in circumstances that will not result in a public offering and/or securities intermediation in Chile within the meaning of the Chilean Securities Act.

None of the Agents is a bank or a licensed broker in Chile, and therefore each Agent has not and will not conduct transactions or any business operations in any of such qualities, including the marketing, offer and sale of the notes, except in circumstances that will not result in a "public offering" as such term is defined in Article 4 of the Chilean Securities Act, and/or will not result in the intermediation of securities in Chile within the meaning of Article 24 of the Chilean Securities Act and/or the breach of the brokerage restrictions set forth in Article 39 of Decree with Force of Law No. 3 of 1997.

The notes will be sold only to specific buyers, each of which will be deemed upon purchase:

(i) to be a financial institution and/or an institutional investor or a qualified investor with such knowledge and experience in financial and business matters as to be capable of evaluating the risks and merits of an investment in the notes;

(ii) to agree that it will only resell the notes in the Republic of Chile in compliance with all applicable laws and regulations; and that it will deliver to each person to whom the notes are transferred a notice substantially to the effect of this selling restriction;

(iii) to acknowledge receipt of sufficient information required to make an informed decision whether or not to invest in the notes; and

(iv) to acknowledge that it has not relied upon advice from any Agent and/or us, or our respective affiliates, regarding the determination of the convenience or suitability of notes as an investment for the buyer or any other person; and that it has taken and relied upon independent legal, regulatory, tax and accounting advice.

Colombia

The notes have not been and will not be registered in the National Securities Registry of Colombia (*Registro Nacional de Valores y Emisores*) kept by the Colombian Financial Superintendency (*Superintendencia Financiera de Colombia*) or in the Colombian Stock Exchange (*Bolsa de Valores de Colombia*). Therefore, the notes will not be marketed, offered, sold or distributed in Colombia or to Colombian residents in any manner that would be characterized as a public offering, as such is defined in article 1.2.1.1 of Resolution 400, issued on May 22, 1995 by the Securities Superintendency General Commission (*Sala General de la Superintendencia de Valores*), as amended from time to time.

If the notes are to be marketed within Colombian territory or to Colombian residents, regardless of the number of persons to which said marketing is addressed to, any such promotion or advertisement of the notes must be made through a local financial entity, a representative's office, or a local correspondent, in accordance with Decree 2558, issued on June 6, 2007 by the Ministry of Finance and Public Credit of Colombia, as amended from time to time.

Therefore, the notes should not be marketed within Colombian territory or to Colombian residents, by any given means, that may be considered as being addressed to an indeterminate number of persons or to more than ninety-nine (99) persons, including but not limited to:

(i) any written material or other means of communication, such as subscription lists, bulletins, pamphlets or advertisements;

(ii) any offer or sale of the notes at offices or branches open to the public;

(iii) use of any oral or written advertisements, letters, announcements, notices or any other means of communication that may be perceived to be addressed to an indeterminate number of persons for the purpose of marketing and/or offering the notes; or

(iv) use (a) non-solicited emails or (b) email distribution lists to market the notes.

The Disclosure Documents are for your sole and exclusive use, including any of your shareholders, administrators or employees, as applicable. You acknowledge the Colombian laws and regulations (specifically foreign exchange and tax regulations) applicable to any transaction or investment consummated pursuant thereto and represent that you are the sole liable party for full compliance with those laws and regulations.

Costa Rica

The notes may not be offered or sold, directly or indirectly, to any person within the Republic of Costa Rica, in circumstances that require the issuer or offeror and the notes to be authorised by the Superintendencia General de Valores. Any offering, express or implicit, that seeks to issue, negotiate or sell securities among public investors, is deemed under Costa Rican law (Ley Reguladora del Mercado de Valores, N° 7732, and its Regulations) as a public offering, which requires the issuer or offeror and the notes to be authorised by the Superintendencia General de Valores. A public offering is any invitation or transmission by any means to the public or determined groups of persons exceeding 50 potential investors. A public offering is presumed when made through public or collective means of communication (mass media), such as press, radio, television and internet, or when the offering includes standardized securities.

Accordingly, each Agent has represented and agreed that (i) it is appropriately registered with the Superintendencia General de Valores, (ii) it has not offered or sold and will not offer or sell, directly or indirectly, any notes to the public in Costa Rica and (iii) that sales of the notes in Costa Rica will be placed or negotiated only on an individual basis with private investors, limited to a maximum 50 investors. Each Agent will evidence in writing, for each offering, compliance with the above requirements by means of an affidavit, a party declaration or any form of express acknowledgement. Each Agent has acknowledged that it is registered as a financial intermediary with the Superintendencia General de Valores, and that the Disclosure Documents have not been filed with the Superintendencia General de Valores and, therefore, it is not intended for any public offering of the notes in Costa Rica within the meaning of Costa Rican law.

El Salvador

The notes may not be offered to the general public in El Salvador, and according to Article 2 of the *Ley de Mercado de Valores* (Securities Market Law) of the Republic of El Salvador, Legislative Decree number 809 dated 16 February 1994, published on the *Diario Oficial* (Official Gazette) number 73-BIS, Number 323, dated 21 April 1994, and in compliance with the aforementioned regulation, each Agent has represented and agreed that it will not make an invitation for subscription or purchase of the notes to indeterminate individuals, nor will it make known any Disclosure Document in the territory of El Salvador through any mass media communication such as television, radio, press or any similar medium, other than publications of an international nature that are received in El Salvador, such as internet access or foreign cable advertisements, that are not directed to the Salvadoran public. The offering of the notes will not be registered with an authorized stock exchange in the Republic of El Salvador. Any negotiation for the purchase or sale of notes in the Republic of El Salvador will be negotiated only on an individual basis with determinate individuals or entities in strict compliance with the aforementioned Article 2 of the Salvadoran Securities Market Law, and will, in any event, be effected in accordance with all securities, tax and exchange control of the Dominican Republic, Central America, and United States Free Trade Agreements, and other applicable laws or regulations of the Republic of El Salvador.

European Economic Area

In relation to each Member State of the European Economic Area that has implemented the Prospectus Directive (each, a "Relevant Member State"), each Agent has represented and agreed, that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it will not make an offer of the notes to the public in that Relevant Member State except that it may, with effect from and including the Relevant Implementation Date, make an offer of the notes to the public in that Relevant Member State:

(i) at any time to any legal entity that is a qualified investor as defined in the Prospectus Directive;

(ii) at any time to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the Agent; or

(iii) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no offer of notes will require us or any Agent to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of the notes to the public" in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe the notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

This European Economic Area selling restriction is in addition to any other selling restrictions set out herein.

Hong Kong

Each Agent has represented and agreed that:

(i) it will not offer or sell in Hong Kong, by means of any document, the notes (except for notes which are a "structured product" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong) other than (a) to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance; or (b) in other circumstances that do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong or that do not constitute an offer to the public within the meaning of that Ordinance; and

(ii) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the notes that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to notes that are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made under that Ordinance.

Jersey

Each Agent has represented to and agreed with us that it will not circulate in Jersey any offer for subscription, sale or exchange of the notes that would constitute an offer to the public for the purposes of Article 8 of the Control of Borrowing (Jersey) Order 1958.

Mexico

The notes have not been and will not be registered with the Mexican National Registry of Securities maintained by the Mexican National Banking and Securities Commission nor with the Mexican Stock Exchange and therefore, may not be offered or sold publicly in the United Mexican States. The Disclosure Documents may not be publicly distributed in the United Mexican States. The notes may be privately placed in Mexico among institutional and qualified investors, pursuant to the private placement exemption set forth in Article 8 of the Mexican Securities Market Law.

The Netherlands

Each Agent has represented and agreed that with effect from and including January 1, 2012, it will not make an offer of notes that are the subject of the offering contemplated by the Disclosure Documents to the public in The Netherlands in reliance on Article 3(2) of the Prospectus Directive if and to the extent article 5:20(5) of the Dutch Financial Supervision Act (Wet op het financieel toezicht, the "DFSA") will be applied, unless such offer is made exclusively to qualified investors in The Netherlands as defined in the Prospectus Directive, *provided* that no offer of the notes will require us or any Agent to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For the purposes of this provision, the expressions (i) an "offer of notes to the public" in The Netherlands; and (ii) "Prospectus Directive" have the meaning given to them above under the section entitled "European Economic Area."

Panama

The notes have not been and will not be registered with the National Securities Commission of the Republic of Panama under Decree Law No. 1 of July 8, 1999 (the "Panamanian Securities Law") and may not be publicly offered or sold within Panama, except in certain limited transactions exempt from the registration requirements of the Panamanian Securities Law. The notes do not benefit from the tax incentives provided by the Panamanian Securities Law and are not subject to regulation or supervision by the National Securities Commission of the Republic of Panama.

Peru

The notes have not been and will not be registered with or approved by the regulator of the Peruvian securities market or the stock exchange. Accordingly, the notes will be offered only to institutional investors (as defined by the Peruvian Securities Market Law — "*Ley de Mercado de Valores*" enacted by Legislative Decree No. 861 — Unified Text of the Law approved by Supreme Decree No. 093-2002-EF) and not to the public in general or a segment of it. The placement of the notes shall comply with article 5 of the Peruvian Securities Market Law.

Singapore

None of the Disclosure Documents has been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, the Disclosure Documents and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1) of the SFA, or to any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person, which is: (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust will not be transferred within six months after that corporation or that trust has acquired the notes pursuant to an offer made under Section 275 of the SFA except: (1) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA; (2) where no consideration is or will be given for the transfer; (3) where the transfer is by operation of law; or (4) as specified in Section 276(7) of the SFA.

Switzerland

The Disclosure Documents are not intended to constitute an offer or solicitation to purchase or invest in the notes described therein. The notes may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland and will not be listed on the SIX Swiss Exchange or on any other exchange or regulated trading facility in Switzerland. Neither the Disclosure Documents nor any other offering or marketing material relating to the notes constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss Code of Obligations or the Swiss Collective Investment Scheme Act, and neither the Disclosure Documents nor any other offering or marketing material relating to the notes may be publicly distributed or otherwise made publicly available in Switzerland.

Neither the Disclosure Documents nor any other offering or marketing material relating to us, the offering or the notes have been or will be filed with or approved by any Swiss regulatory authority. The notes are not subject to the supervision by any Swiss regulatory authority, *e.g.*, the Swiss Financial Markets Supervisory Authority (FINMA), and investors in the notes will not benefit from protection or supervision by any such authority.

United Kingdom

Each Agent has represented and agreed that:

(a) in relation to any notes that have a maturity of less than one year, (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell the notes other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the notes would otherwise constitute a contravention of Section 19 of the Financial Services and Markets Act 2000 (the "FSMA") by the Issuer;

(b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Uruguay

The offering of notes in Uruguay constitutes a private offering and each Agent has agreed that the notes and we will not be registered with the Central Bank of Uruguay pursuant to section 2 of Uruguayan law 16.749.

Venezuela

The notes will not be registered with the Venezuelan National Securities Commission (*Comisión Nacional de Valores*) and will not be publicly offered in Venezuela. No document related to the offering of the notes shall be interpreted to constitute a public offer of securities in Venezuela. This document has been sent exclusively to clients of the Agents and the information contained herein is private, confidential and for the exclusive use of the addressee. Investors wishing to acquire the notes may use only funds located outside of Venezuela, which are not of mandatory sale to the Central Bank of Venezuela (*Banco Central de Venezuela*) or are not otherwise subject to restrictions or limitations under the exchange control regulation currently in force in Venezuela.

BENEFIT PLAN INVESTOR CONSIDERATIONS

A fiduciary of a pension, profit-sharing or other employee benefit plan subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), including entities such as collective investment funds, partnerships and separate accounts whose underlying assets include the assets of such plans (collectively, "ERISA Plans") should consider the fiduciary standards of ERISA in the context of the ERISA Plan's particular circumstances before authorizing an investment in the notes. Among other factors, the fiduciary should consider whether the investment would satisfy the prudence and diversification requirements of ERISA and would be consistent with the documents and instruments governing the ERISA Plan.

Section 406 of ERISA and Section 4975 of the Internal Revenue Code of 1986, as amended, (the "Code") prohibit ERISA Plans, as well as plans (including individual retirement accounts and Keogh plans) subject to Section 4975 of the Code (together with ERISA Plans, "Plans"), from engaging in certain transactions involving the "plan assets" with persons who are "parties in interest" under ERISA or "disqualified persons" under Section 4975 of the Code (in either case, "Parties in Interest") with respect to such Plans. As a result of our business, we, and our current and future affiliates, may be Parties in Interest with respect to many Plans. Where we (or our affiliate) are a Party in Interest with respect to a Plan (either directly or by reason of our ownership interests in our directly or indirectly owned subsidiaries), the purchase and holding of the notes by or on behalf of the Plan could be a prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless statutory or administrative exemptive relief were available.

Certain prohibited transaction class exemptions ("PTCEs") issued by the U.S. Department of Labor may provide exemptive relief for direct or indirect prohibited transactions resulting from the purchase or holding of the notes. Those class exemptions are PTCE 96-23 (for certain transactions determined by in-house asset managers), PTCE 95-60 (for certain transactions involving insurance company general accounts), PTCE 91-38 (for certain transactions involving bank collective investment funds), PTCE 90-1 (for certain transactions involving insurance company separate accounts) and PTCE 84-14 (for certain transactions determined by independent qualified asset managers). In addition, ERISA Section 408(b)(17) and Section 4975(d)(20) of the Code may provide a limited exemption for the purchase and sale of the notes and related lending transactions, provided that neither the issuer of the notes nor any of its affiliates have or exercise any discretionary authority or control or render any investment advice with respect to the assets of the Plan involved in the transaction and provided further that the Plan pays no more, and receives no less, than adequate consideration in connection with the transaction (the so-called "service provider exemption"). There can be no assurance that any of these statutory or class exemptions will be available with respect to transactions involving the notes.

Accordingly, the notes may not be purchased or held by any Plan, any entity whose underlying assets include "plan assets" by reason of any Plan's investment in the entity (a "Plan Asset Entity") or any person investing "plan assets" of any Plan, unless such purchaser or holder is eligible for the exemptive relief available under PTCE 96-23, 95-60, 91-38, 90-1 or 84-14 or the service-provider exemption or there is some other basis on which the purchase and holding of the notes will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code. Each purchaser or holder of the notes or any interest therein will be deemed to have represented by its purchase or holding of the notes that (a) it is not a Plan and its purchase and holding of the notes is not made on behalf of or with "plan assets" of any Plan or (b) its purchase and holding of the notes will not result in a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code.

Certain governmental plans (as defined in Section 3(32) of ERISA), church plans (as defined in Section 3(33) of ERISA) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) ("Non-ERISA Arrangements") are not subject to these "prohibited transaction" rules of ERISA or Section 4975 of the Code, but may be subject to similar rules under other applicable laws or regulations ("Similar Laws"). Accordingly, each such purchaser or holder of the notes shall be required to represent (and deemed to have represented by its purchase of the notes) that such purchase and holding is not prohibited under applicable Similar Laws.

Due to the complexity of these rules, it is particularly important that fiduciaries or other persons considering purchasing the notes on behalf of or with "plan assets" of any Plan consult with their counsel regarding the relevant provisions of ERISA, the Code or any Similar Laws and the availability of exemptive relief under PTCE 96-23, 95-60, 91-38, 90-1, 84-14, the service provider exemption or some other basis on which the acquisition and holding will not constitute a non-exempt prohibited transaction under ERISA or Section 4975 of the Code or a violation of any applicable Similar Laws.

The notes are contractual financial instruments. The financial exposure provided by the notes is not a substitute or proxy for, and is not intended as a substitute or proxy for, individualized investment management or advice for the benefit of any purchaser or holder of the notes. The notes have not been designed and will not be administered in a manner intended to reflect the individualized needs and objectives of any purchaser or holder of the notes.

Each purchaser or holder of any notes acknowledges and agrees that:

(i) the purchaser or holder or its fiduciary has made and shall make all investment decisions for the purchaser or holder and the purchaser or holder has not relied and shall not rely in any way upon us or our affiliates to act as a fiduciary or adviser of the purchaser or holder with respect to (A) the design and terms of the notes, (B) the purchaser or holder's investment in the notes, or (C) the exercise of or failure to exercise any rights we have under or with respect to the notes;

(ii) we and our affiliates have acted and will act solely for our own account in connection with (A) all transactions relating to the notes and (B) all hedging transactions in connection with our obligations under the notes;

(iii) any and all assets and positions relating to hedging transactions by us or our affiliates are assets and positions of those entities and are not assets and positions held for the benefit of the purchaser or holder;

(iv) our interests are adverse to the interests of the purchaser or holder; and

(v) neither we nor any of our affiliates is a fiduciary or adviser of the purchaser or holder in connection with any such assets, positions or transactions, and any information that we or any of our affiliates may provide is not intended to be impartial investment advice.

Each purchaser and holder of the notes has exclusive responsibility for ensuring that its purchase, holding and subsequent disposition of the notes does not violate the fiduciary or prohibited transaction rules of ERISA, the Code or any applicable Similar Laws. The sale of any notes to any Plan is in no respect a representation by us or any of our affiliates or representatives that such an investment is appropriate for, or meets all relevant legal requirements with respect to investments by, Plans or Non-ERISA Arrangements generally or any particular Plan or Non-ERISA Arrangement.